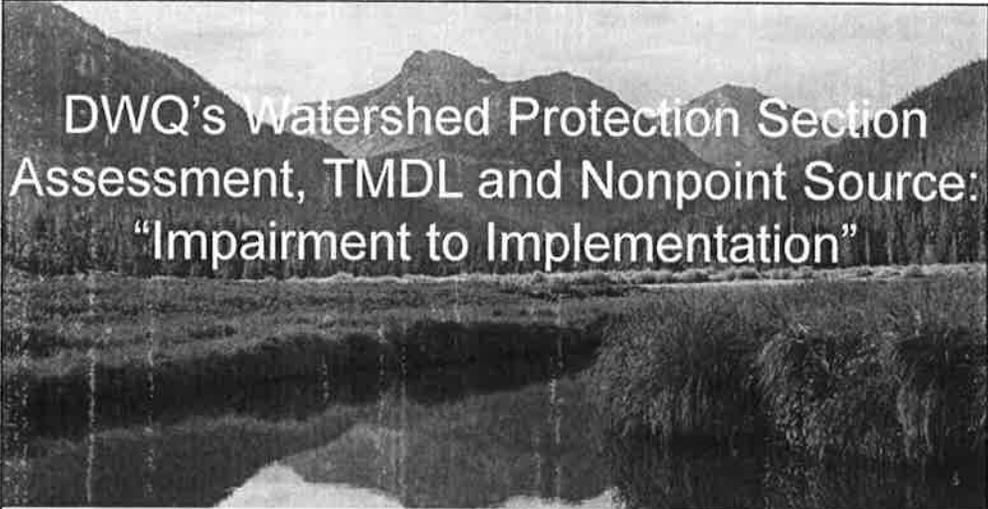


Sign In Sheet
 Nonpoint Source Agency Coordination Meeting
 March 4th, 2020

Name	Agency	Email
Kerman Rice		
Kristy Davis		
Jim Bower	DEQ/DWQ	jdbower@utah.gov
Jason Kim	Weber Basin WCD	jkim@weberbasin.com
Hope Braithwaite	USU Water Quality Extension	hope.braithwaite@usu.edu
Melissa Noble	DDW	mnoble@utah.gov
Rhonda Miller	USU	rhonda.miller@usu.edu
GABRIEL MURRAY	UDAF	gmurray@utah.gov
Wally Dadds	UDAF	wadd@utah.gov
Mark Dallon	US Forest Service	mark.dallon@usda.gov
Jared Dalebout	BLM	jdalebout@blm.gov
Jay Olson	UDAF	jayolson@utah.gov
Jason Roper	NRCS	Jason.Roper@usda.gov
Elise Hinman	DWQ	ehinman@utah.gov
Bill Zaretti	FFSG	billzaretti@utah.gov
Jim Harris	DWQ	jamesharris@utah.gov
Tyler Thompson	DNR	tylertthompson@utah.gov
Don Wileey	DWR	donwiley@utah.gov
Jay Kalafatis	USBZ	jkalafatis@usbr.gov
Sandy Wingert	UDWQ	swingert@utah.gov
Charlie Condrat	USFS	charlie.condrat@usda.gov
MARK MUIR	USFS	mark.muir@usda.gov
John Saunders	UDAF	jsaunders@utah.gov



DWQ's Watershed Protection Section
Assessment, TMDL and Nonpoint Source:
"Impairment to Implementation"



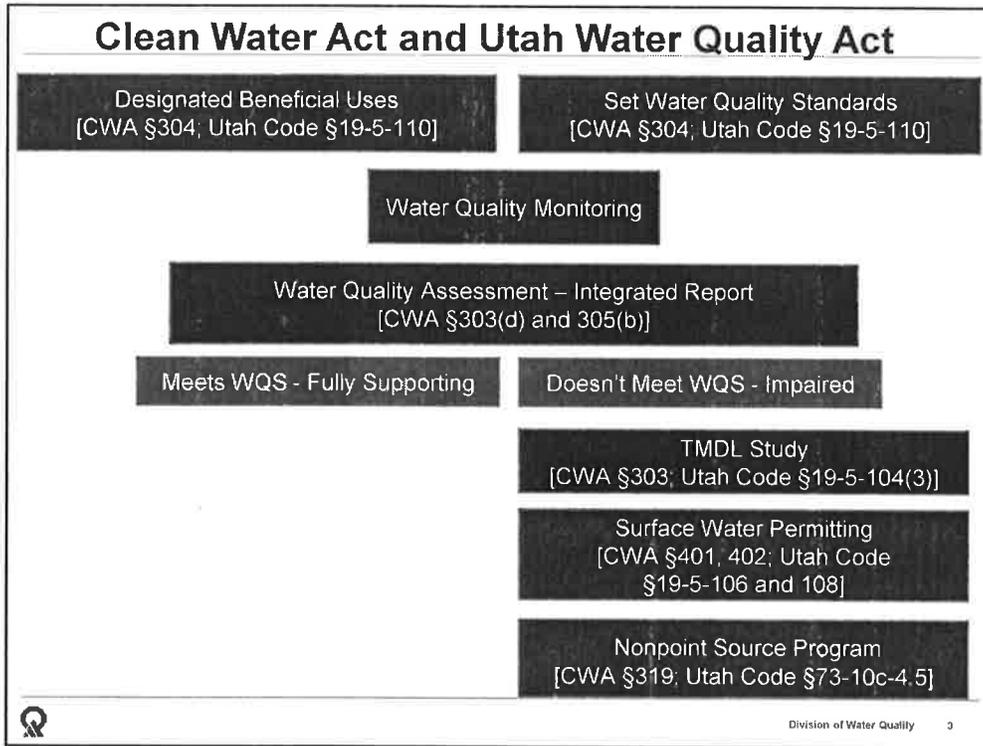
UTAH DEPARTMENT of
ENVIRONMENTAL QUALITY
**WATER
QUALITY**

Jodi Gardberg,
Watershed Protection Section Manager
Utah Division of Water Quality

Clean Water Act

**Restore and maintain the chemical,
physical and biological integrity of the
nation's waters**

**Water quality that is both fishable and
swimmable**



Combined 2018/2020 Integrated Report

- Bi-annual assessment of the water quality in the State
- Period of record: 10/01/2010 to 09/30/2019
- Assess readily available and credible standards are being met for each beneficial use
- Integrated Report
 - 305b – state of water quality
 - 303d – list of water bodies not meeting standards
- 3 ways to interact with the IR
 - Call for Data
 - Assessment Methods
 - Draft Report

2016 Beneficial Use Assessment

Division of Water Quality 4

Utah's 303(d) Vision

High Priority Factors			
Waterbody Characteristics	Pollutants	Impaired Uses	Pollutant Sources
Drinking Water Source	Toxics	Drinking Water	Combination of Point and Nonpoint sources
National Park or State Park	Metals	Recreation	
High Recreational Use	Bacteria	Aquatic Life	
Blue Ribbon Fishery	DO		
Important Bird Areas	Nutrients linked to harmful algal blooms		
Permit Administration			
Ongoing study			

As long as high quality waters, the process for selecting certain types and how they will be used in the future's program is provided herein.

<https://deq.utah.gov/legacy/programs/water-quality/watersheds/docs/2016/303d-list-for%20tmdl-development.pdf>

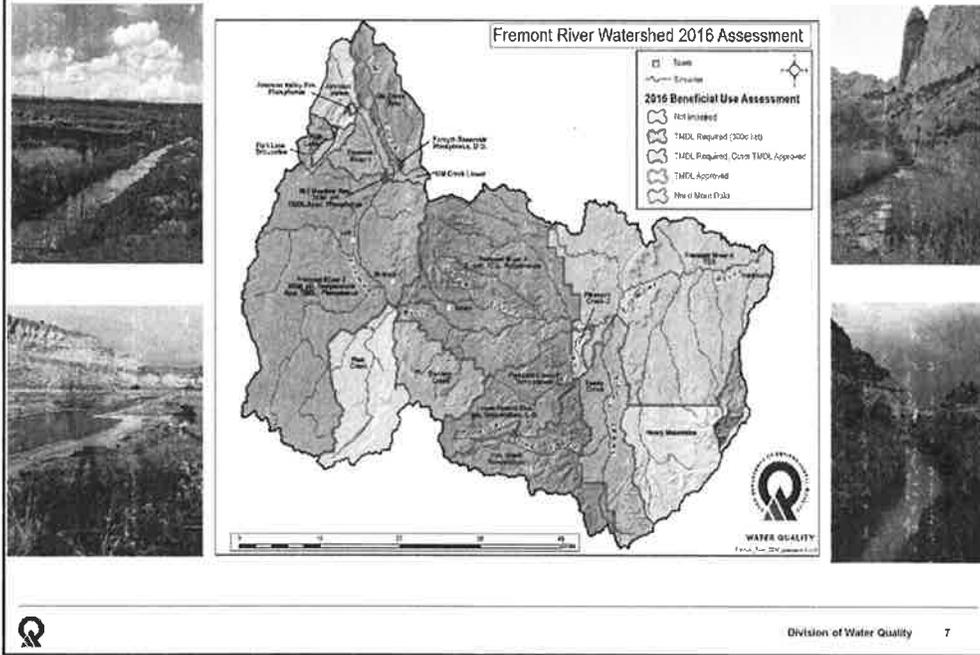


2022 Priority TMDLs Summary

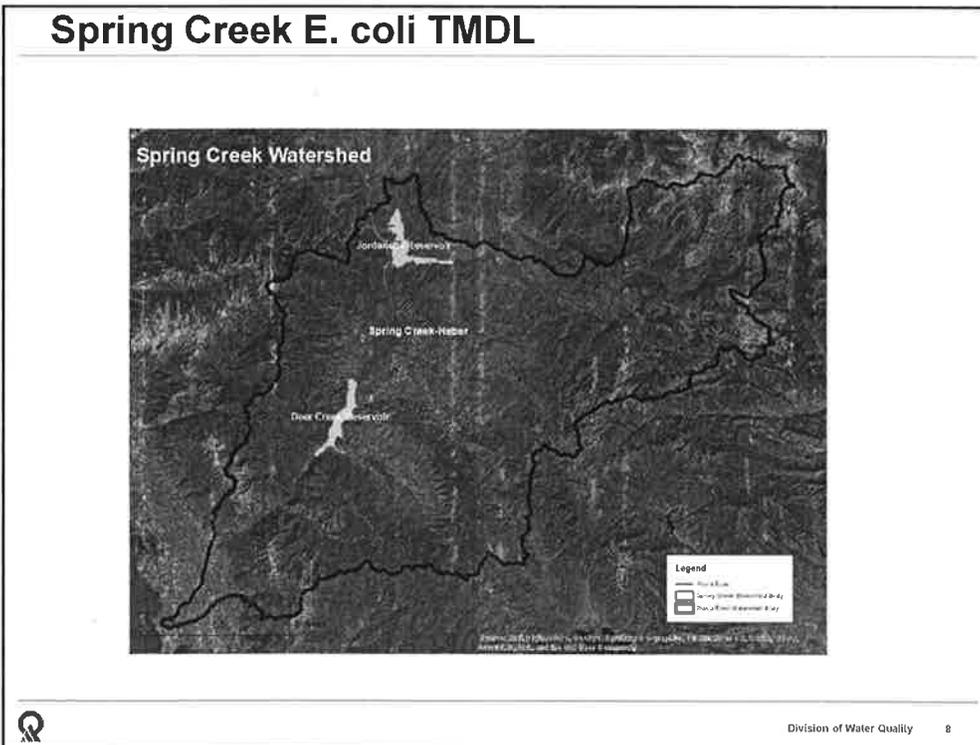
No. of line items	Status	Notes
3	Completed	Northfork Virgin River 1 and 2-E.coli, Ninemile-temperature
2	Possible delisting	Provo River6- Aluminum, City Creek-Cadmium
2	Site Specific Standard	Provo River 6-Zinc and Jordan River 8-Arsenic (to be developed)
4	In progress	Jordan River 1, 2, 3-Dissolved Oxygen, Snake Creek-Arsenic
15	E.coli TMDLS	Jordan River watershed wide , Fremont River, Spring Creek (Heber)
2	5-alternative or straight to implementation	Lower Bowns (Dissolved Oxygen and Total Phosphorous)
28	Total	



Fremont E. coli TMDL



Spring Creek E. coli TMDL



Jordan River TMDLs



Jordan River Watershed (wide) E. coli TMDLs

- Jordan River 1-5
- Mill Creek 1 & 2
- Big Cottonwood 1
- Little Cottonwood 1
- Lower Emigration
- Parleys Canyon 1
- Butterfield
- Rose

Phase 2 Jordan River Dissolved Oxygen TMDL

DWQ Basin and Local Watershed Coordinators

Basin	DWQ Basin Coordinator	UDAF Local Watershed Coordinator
Bear	Mike Allred	Gabe Murray
West Desert	Mike Allred	
Lower Sevier (San Pitch)	Mike Allred	John Saunders
Upper Sevier	Mike Allred	Wally Dodds
Southeast Colorado	Lucy Parham	Arne Hultquist
Lower Colorado	Amy Dickey	
Western Colorado	Amy Dickey	
Cedar/Beaver	Amy Dickey	
Uinta	Elise Hinman	
Weber	Elise Hinman	Vacant
Jordan/Upper Provo	Sandy Wingert	Vacant
Utah Lake/Lower Provo	Scott Daly	Vacant



DWQ Basin Coordinator Responsibilities

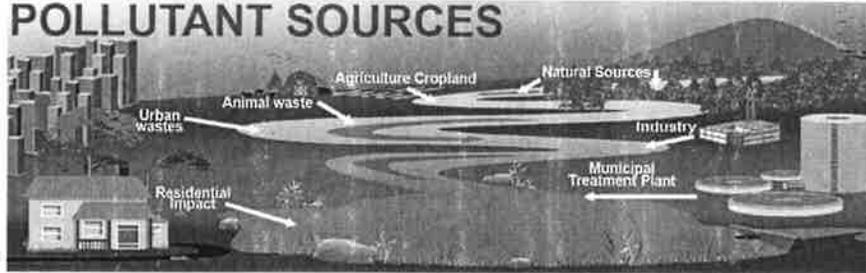
- Oversee implementation of approved TMDLs in permits and projects
- Review and maintain 303 (d) list of impaired waters
- Maintain list of active agencies and personnel
- Maintain list of all DWQ permits/permit writers
- Participate in watershed groups and other prominent plans/projects
- Coordinate cooperative monitoring sites
- Review list of DWQ intensive and targeted monitoring sites
- Oversee UDAF watershed coordinators



Questions?

Total Maximum Daily Load (TMDL)

POLLUTANT SOURCES



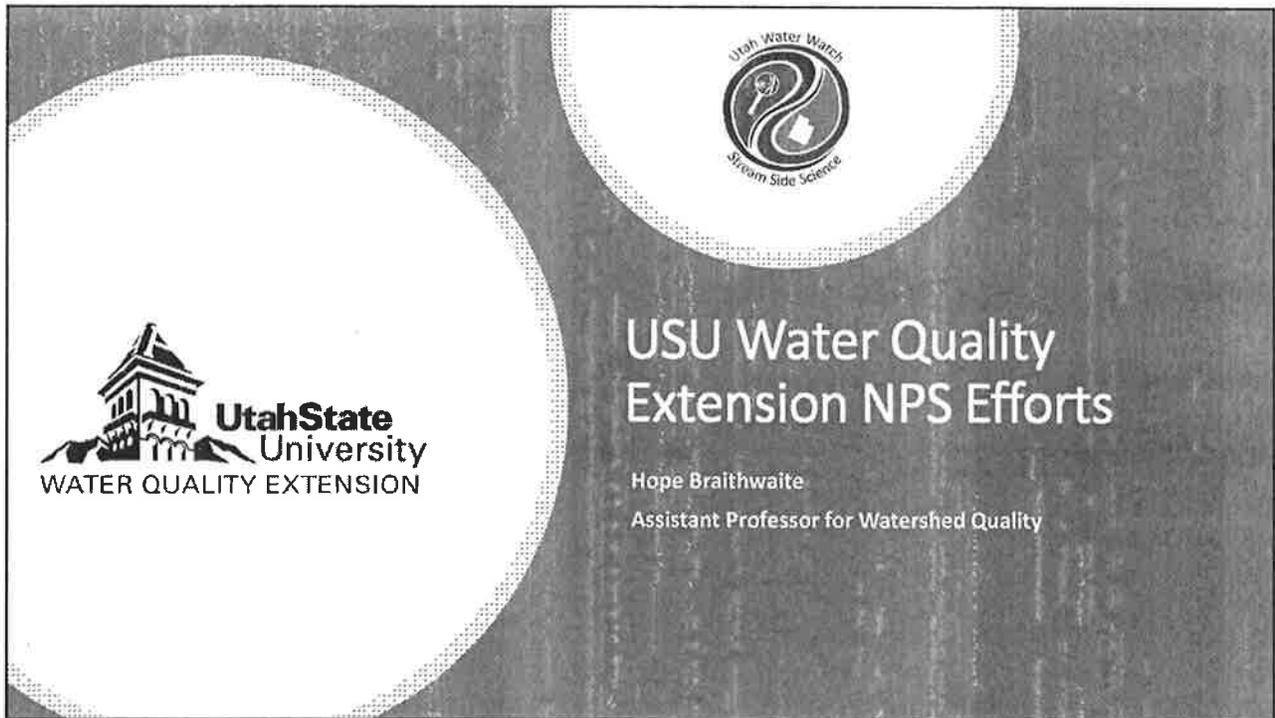
A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still maintain beneficial uses.

$$\text{TMDL} = \text{Waste Load Allocation (from point sources)} + \text{Load Allocation (from nonpoint sources)} + \text{Margin Of Safety}$$

<https://www.lakepepinlacountyalliance.org/faq>



Division of Water Quality 13



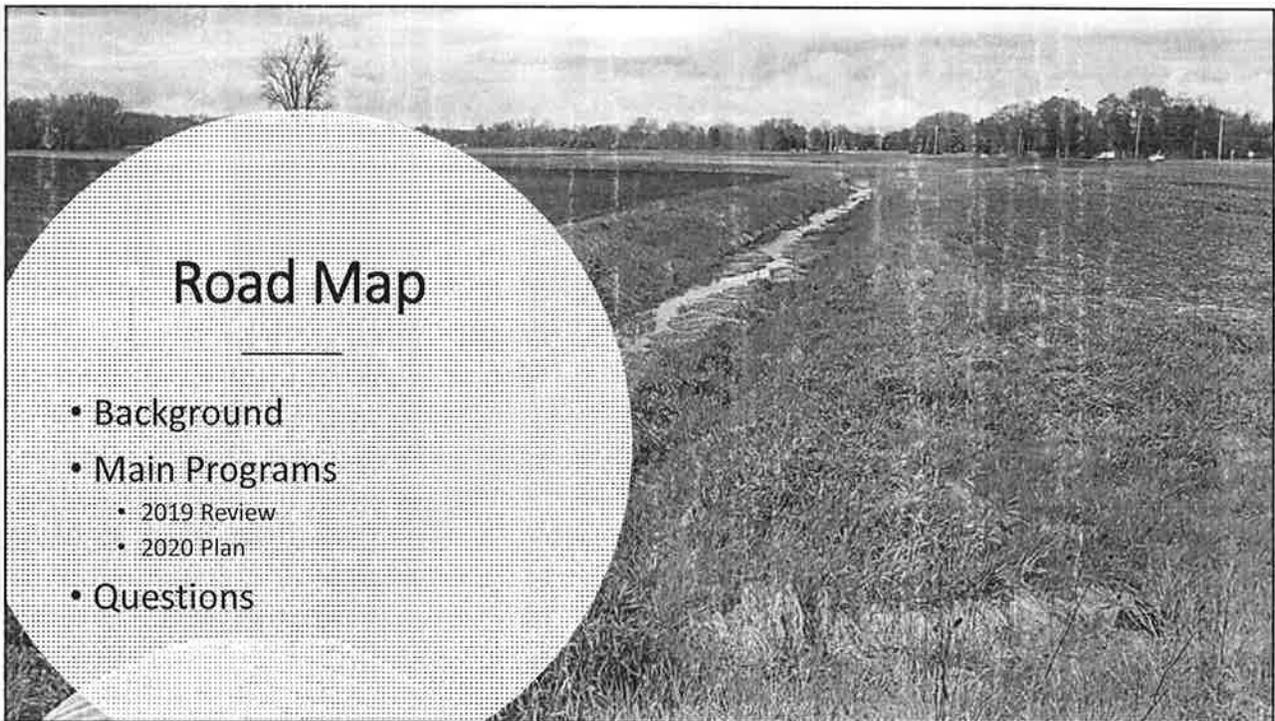
The cover page features a dark, textured background. On the left, a large white circle contains the Utah State University logo, which includes a stylized building and the text "Utah State University" and "WATER QUALITY EXTENSION". In the top right corner, another white circle contains the Utah Water Watch logo, featuring a stylized water drop and the text "Utah Water Watch" and "Stream Side Science". The main title "USU Water Quality Extension NPS Efforts" is centered in a large, white, sans-serif font. Below the title, the name "Hope Braithwaite" and her title "Assistant Professor for Watershed Quality" are listed in a smaller white font.

Utah Water Watch
Stream Side Science

Utah State University
WATER QUALITY EXTENSION

USU Water Quality Extension NPS Efforts

Hope Braithwaite
Assistant Professor for Watershed Quality



The slide features a background image of a rural landscape with a dirt road winding through a field. A large white circle with a halftone pattern is overlaid on the left side of the image. Inside this circle, the title "Road Map" is centered at the top. Below the title, a bulleted list contains the following items: "Background", "Main Programs" (with sub-bullets for "2019 Review" and "2020 Plan"), and "Questions".

Road Map

- Background
- Main Programs
 - 2019 Review
 - 2020 Plan
- Questions

Background

Transition time for USU Water Quality Extension

- USU Water Quality Specialist, Nancy Mesner
 - Built USU WQE
 - Phased retirement
 - 50% until September 2021
- USU Extension Assistant Professor in Watershed Quality, Hope Braithwaite
 - WQE Intern 2010 – 2015
 - Hired in this position Feb. 2019
- USU Water Quality Specialist, Erin Rivers
 - Starts August 2020



WATER QUALITY RESEARCH DIRECTIONS



MANAGING URBAN WATER QUALITY

What are the unique water quality challenges in growing urban areas in the Wasatch Front?

Can we design systems to align water quality and quantity goals?



LID APPLICATIONS IN ARID LANDSCAPES

How does low impact development (LID) function in arid landscapes?

What are ecosystem service tradeoffs and cost/benefits?

How do we manage these systems differently?



EMERGING CONTAMINANTS

PPCPs, PFAS

What is the fate and transport of emerging contaminants in surface waters?

PROGRAMMING FOR WATER QUALITY



WATERSHED PARTNERSHIPS

Coordinating research efforts with agency needs



PROFESSIONAL TRAINING

Development of programs for professional development

Crediting hours with agencies



COMMUNITY ENGAGEMENT

Continuing/expanding current programming

Erin Rivers: erin_rivers@ncsu.edu or 765-610-6716

USU Water Quality Extension Programs

Goal: Reduce the impacts of nonpoint source pollution by increasing the public's awareness of water quality issues, and motivating changes in behavior that will be more protective of water quality.

3 Main Program Areas

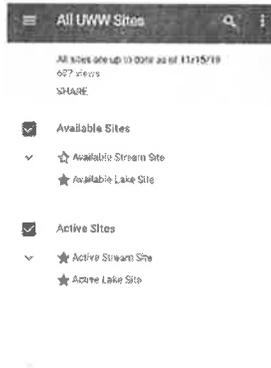
- Utah Water Watch
- Youth outreach and educator training
- Support for watershed projects and TMDL efforts
 - Statewide Water Quality Outreach Campaign



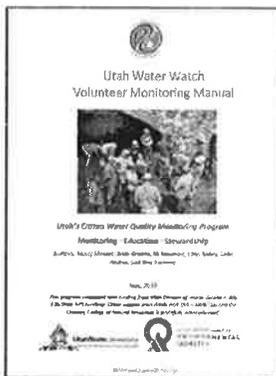
Utah Water Watch 2019 Review

Engages volunteers statewide in water quality monitoring

- 69 new volunteers
- 109 unique participants
- 154 sites
- 335 monitoring events



Utah Water Watch 2019 Review



Welcome to bloomWatch!

Crowdsourcing to find and report potential cyanobacteria blooms

Utah Water Watch 2020 Plan

- Add conductivity monitoring
- Expand HAB monitoring
 - Frequent routine checks
 - SOS response
- Develop online training resources



Youth Outreach and Educator Training 2019 Review

Youth Outreach

- STEM Fairs, water fairs, experiential camps, field trips



Educator Training

- 67 educators attended our various educator workshops



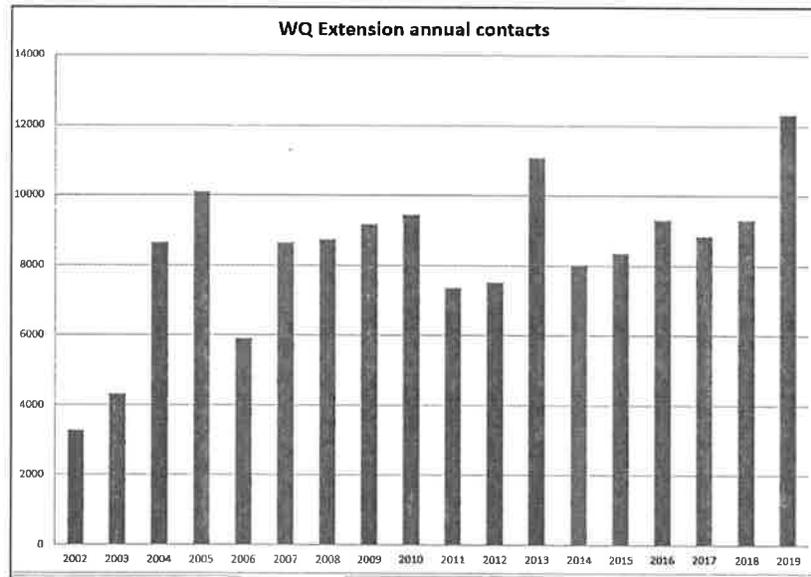
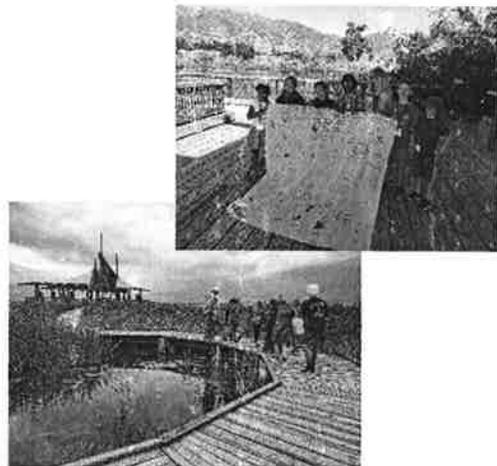


Figure 6. Participant numbers each year (all activities combined)

Youth Outreach and Educator Training 2020 Plan

- Developing new conductivity lesson
- Updating existing curricula to align to new Utah SEEd standards
- Training 4-H coordinators statewide on water quality monitoring
- Seeking funding for water quality monitoring station and display at the USU Botanical Center



Statewide WQ Outreach Campaign 2019 Review

Identified growing NPS concerns

- Pollution from improper treatment or removal of human waste left along trails and in distributed recreational areas
- Pollution of shallow groundwater from improper management of septic systems
- Threats to small standing wetlands and riparian areas across the state
- Small acreages in unconsolidated areas and small towns with animals and/or gardens



Statewide WQ Outreach Campaign 2019 Review

Survey for small farm owners and operators

- Received a total of 436 responses
- All counties except Daggett represented

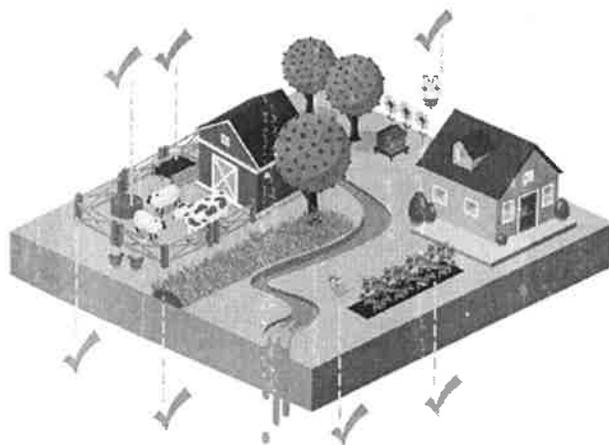
Survey results

- Most participants have farmed at least 1 to 5 years (92%)
- Manure most common fertilizer (63%)
- Personal/online research, co-op/feed store and soil tests are the top 3 sources of fertilizer application information
- Controlling weeds is biggest small farm management challenge (also from comments – pest control, time, labor, water availability)
- Internet information is the top resource (69%) for small farm management information

Statewide WQ Outreach Campaign 2020 Plan



WQMB TAKE ACTION! ANIMAL ACTIONS GREEN ZONE



THE GOOD NEIGHBOR...

- ✓ Fences animals out of waterways
- ✓ Provides animals a watering facility
- ✓ Encourages natural vegetation along streambanks
- ✓ Stores manure away from water
- ✓ Gets soil tested before fertilizing
- ✓ Protects bees, birds and pets from dangerous pesticides & hazardous materials
- ✓ Uses water efficiently

THE PROBLEM NEIGHBOR...

- ✘ Lets animals drink & wander in waterways
- ✘ Removes natural vegetation from stream banks
- ✘ Lets manure stack up too close to water
- ✘ Over-fertilizes lawns, gardens & crops
- ✘ Lets **pesticides** & hazardous materials endanger bees, birds & pets
- ✘ Wastes water



An isometric illustration of a farm and a house. A stream flows between them. Four 'X' marks are placed above the scene, with dashed lines pointing to specific areas: a cow in the stream, a tree on the stream bank, a pile of manure near the stream, and a house with a large 'X' above it. Below the stream, a dashed line points to a well.



An isometric illustration of a farm and a house, similar to the one above. A sad face icon is placed above a well on the farm. Dashed lines connect the well to the stream and the house. The stream is shown with a large amount of weeds growing along its banks.

THE SAD NEIGHBOR...

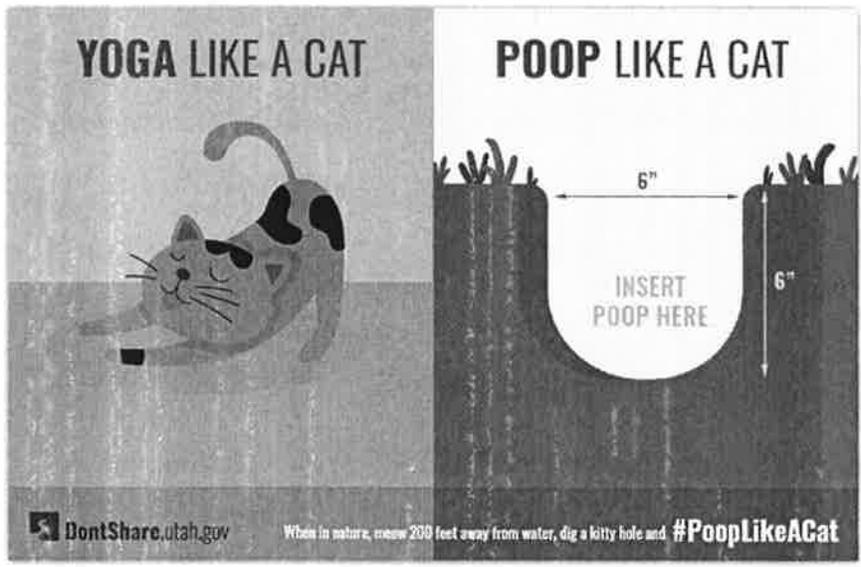
- Has a contaminated well
- Has sick animals
- Has excessive weeds
- Has poor pollination of plants
- Has less usable water available

ARE YOU A:

 **GOOD NEIGHBOR** *or*  **PROBLEM NEIGHBOR?**

FIND OUT HERE

YOGA LIKE A CAT **POOP LIKE A CAT**



DontShare.utah.gov When in nature, meow 200 feet away from water, dig a litty hole and **#PoopLikeACat**

Educational Monitoring Committee?

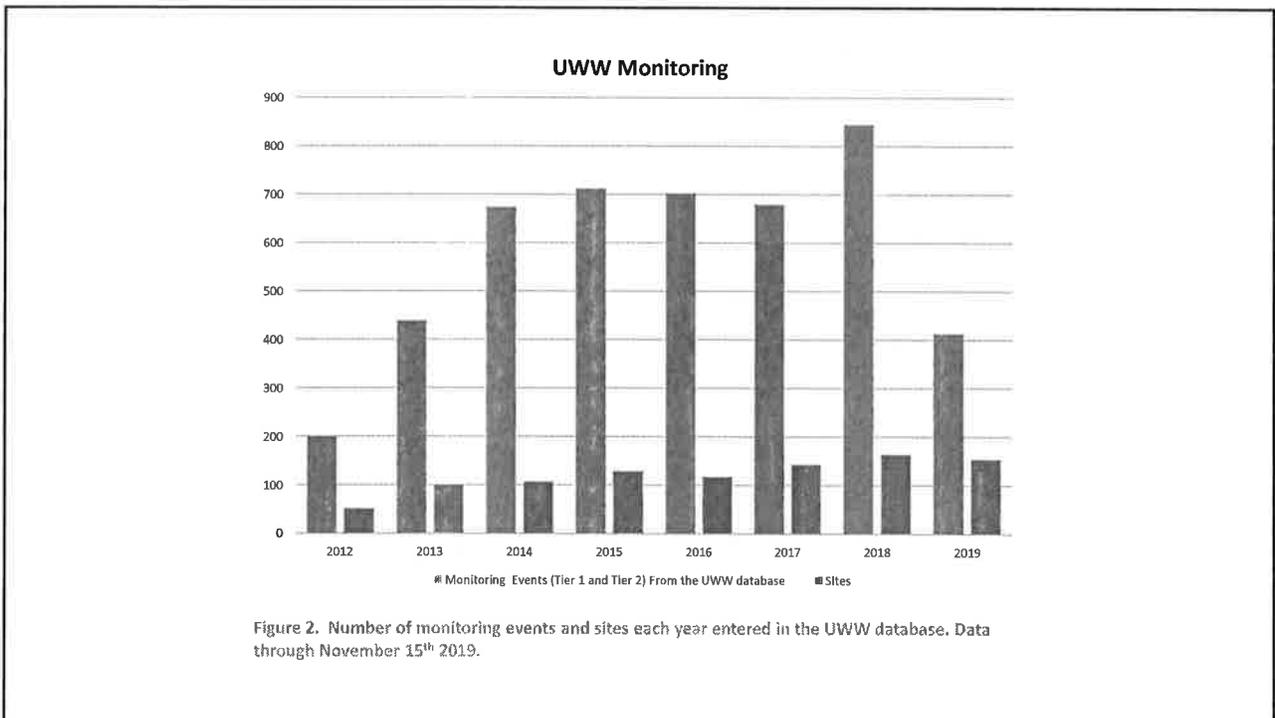
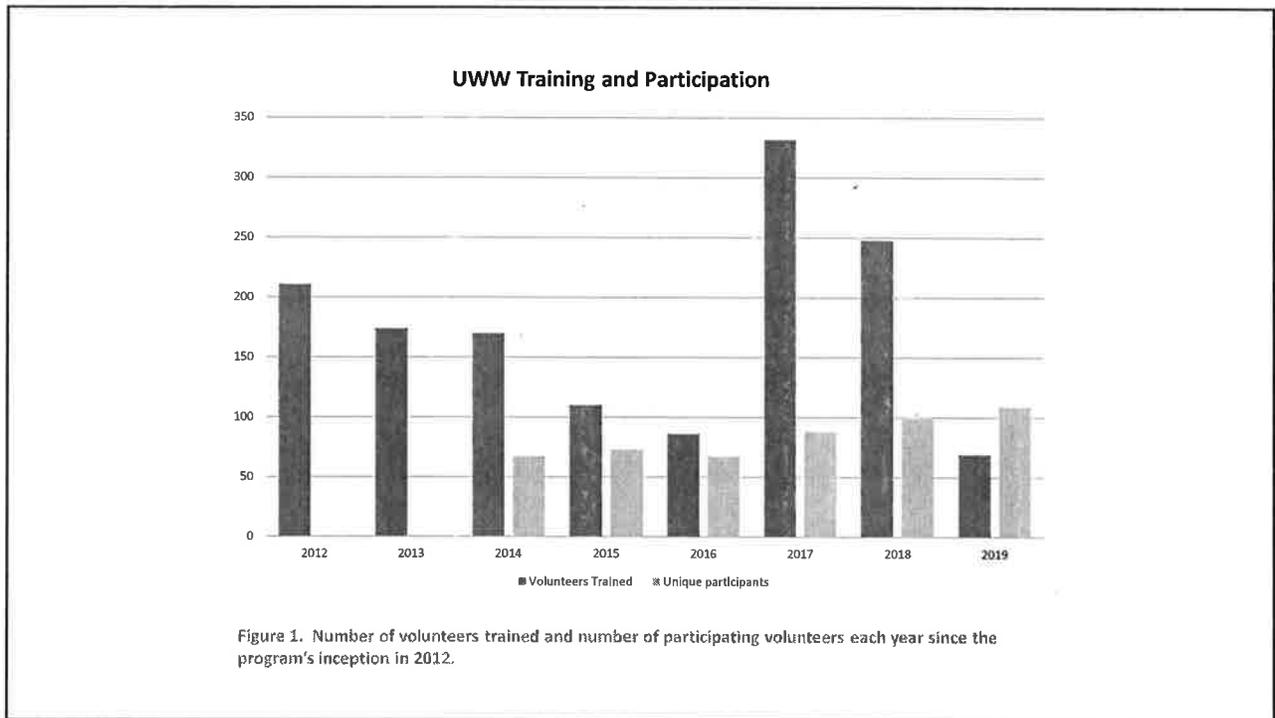


Questions?

Hope Braithwaite

hope.braithwaite@usu.edu

(435) 919-1324



BLM Utah

2019-2020 Watershed Management Highlights Non-Point Source Coordination Meeting March 4th 2020



Photo: Michael Henkin, NGC Traveler 2010

Jared Dalebout
BLM UT State Hydrologist
Salt Lake City, UT



BLM UT Watershed Management Overview

- BLM manages 22.9 million acres – 42% of UT
- 'Multiple Use' land management framework
- Statewide 3 hydrologists(Previously 7)- 2020 (Goal/Funding) (6)
- Field offices without hydrologists typically have a Natural Resource Specialist, Aquatic Biologist, or Geologist deal with water related issues and monitoring.
- Healthy Lands and Watershed Restoration Initiatives
 - Focus on improving habitat, vegetation, and water quality, monitoring
- Other BLM program areas contribute to stream and watershed Improvement:
 - Fisheries, Riparian, Range, Soil/Water/Air, Wildlife, Forestry, Colorado Plateau Native Plants



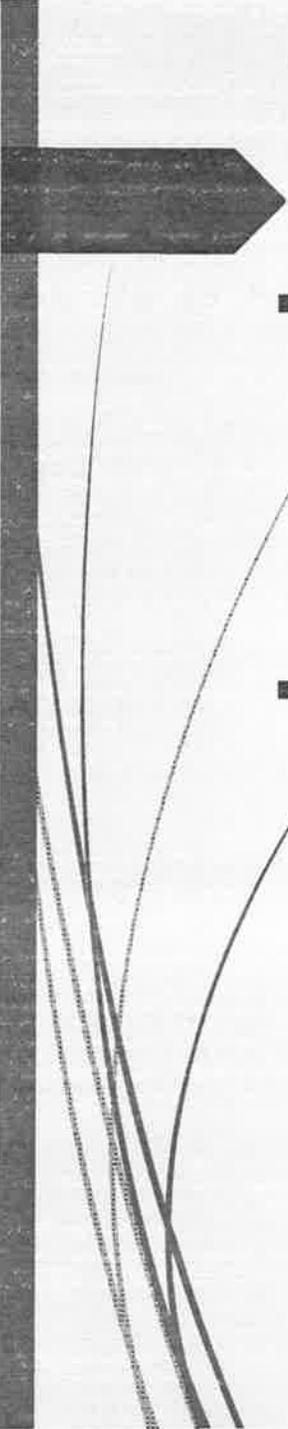
Utah Watershed Restoration Initiative/BLM Program Changes

- ▶ BLM in 17th year of cooperation in UPCD/WRI with State of UT Division of Wildlife-Continued for 2020
 - ▶ (Utah Partners for Conservation and Development)
- ▶ Internally Previous Soil/Water/Air Program (1010) changed to Aquatic Resources (1160) (Combined /water/riparian/fisheries) (soil program moved to range-1020). Colorado River Salinity Reduction (BOR) D Sub-Program (funding continued for 2020)
- ▶ Acting State Director
- ▶ BLM contributes funding to WRI primarily through Wildlife, Fuels, and Healthy Lands Initiative (HLI) programs.
- ▶ WRI Projects on BLM lands include:
 - ▶ Riparian Restoration/Tamarisk-Russian Olive Removal
 - ▶ Sagebrush Treatments – (dixie harrow/seeding)
 - ▶ Pinyon-Juniper Woodland treatments – (mastication & hand thin)
 - ▶ Seeding of treated areas or degraded rangelands.



Utah Watershed Restoration Initiative

- 2019 Projects Funded & Acres:
 - BLM contributes funding to WRI
 - BLM was Lead Agency for:
 - 69,000~ acres of upland treatment,
 - 82~ acres of riparian treatments.
 - 102~ Stream Miles

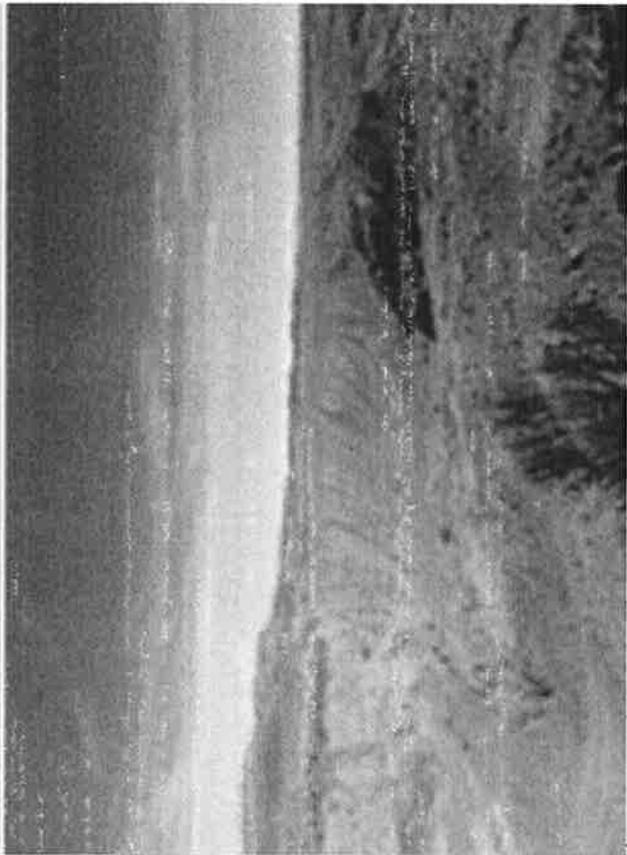
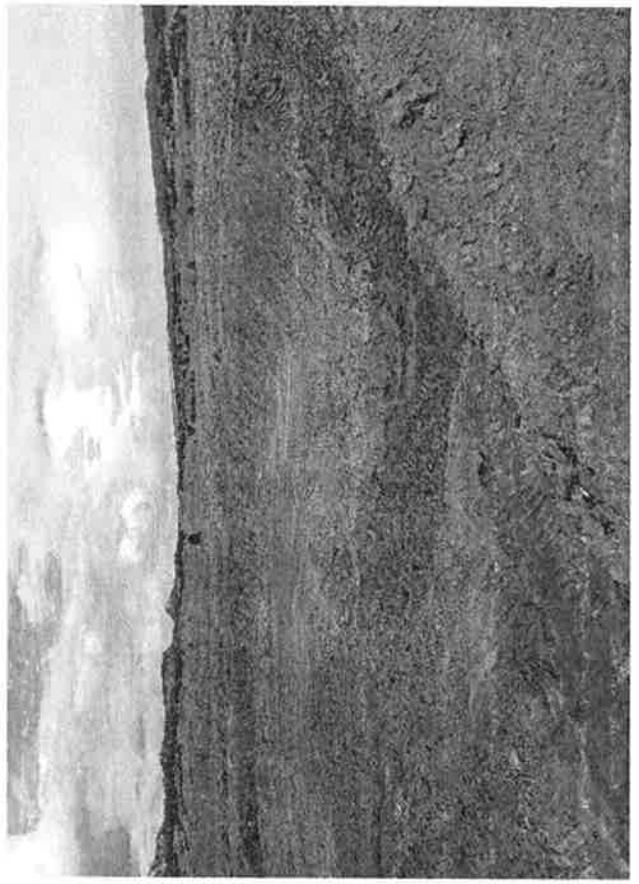


2019 WRI/HLI Accomplishments

- ▶ New Paria River District (2019)
 - ▶ Grand Staircase Escalante National Monument (GSENM)
 - ▶ Kanab Field Office
 - ▶ UDWQ- Cooperative monitoring program with UDWQ Staff. Collected field data and water chemistry samples. Perennial streams in GSENM and Kanab FO.
- ▶ BLM Salinity Funding- Salinity Structure Repair
 - Renovations/Rehabilitations of sediment retention structures 1950's-1960's. (9 total structures) (22,943) yd³= 1,538 tons of salt
 - Repair work of dam/spillway, head cut stabilization, sediment removal and upland stockpiling

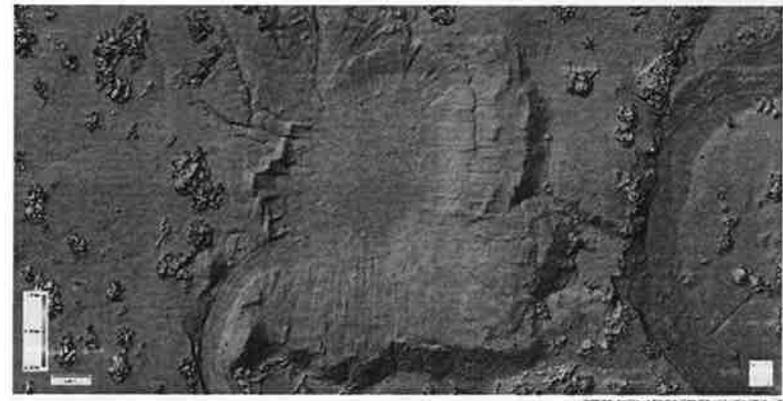
- ▶ Kanab and GSENM have a large # of sediment structures that were installed in the 1950's – 1960's
 - ▶ Placed down-drainage from outcrops of highly saline geology.
 - ▶ Structures designed to capture sediment and runoff
 - ▶ Most structures are full and/or have compromised spillways
- ▶ BLM is in process of maintaining, stabilizing, & dredging a number of large sediment retention structures with BOR Salinity Reduction funding.





Assessment of erosion, sediment yield, and salinity loading on BLM administered lands- 2017 Study with USGS

- Quantify sediment and salinity loading rates in watersheds above retention basins. (DEM differences)*
- Structure from Motion (SfM) for topographic data.*



DEMs produced from SfM assessments of two salinity control structures in May, 2018.



Canyon Country District Moab and Monticello Field Offices

► Planning

- Bears Ears National Monument Management Plan
- Although water resources were not an issue of concern, the management plan does provide for limited surface disturbance near springs, streams, water wells and riparian areas.

► Monitoring

- Cooperative Water Quality program with UDWQ.
- Details Sampling Analysis Plan (SAP) completed.
- Sites- Impaired waters and sites within Bears Ears National Monument and Monticello FO.
- Spring Inventory- Monitoring-Data Collection Using Spring Stewardship Institute (SSI) protocols. (Focused on areas with water rights adjudications.
- Montezuma Creek Watershed UDWQ-UGS- monitoring equipment on 7 sites related to Pinyon-Juniper related project. Stream flow baseline, ground water levels, soil moisture conditions in project and control area.

Moab/Monticello FO (continued) Dolores River Meander Restoration

- Removal of man-made gravel berm
- Allowing flood flows to enter overflow channel system.
- Successful April-July
- Funded through State of Colorado mitigation funds related to upstream hydrocarbon spill.



Dolores River, above, flowing through cut in gravel berm into overflow channel system to left



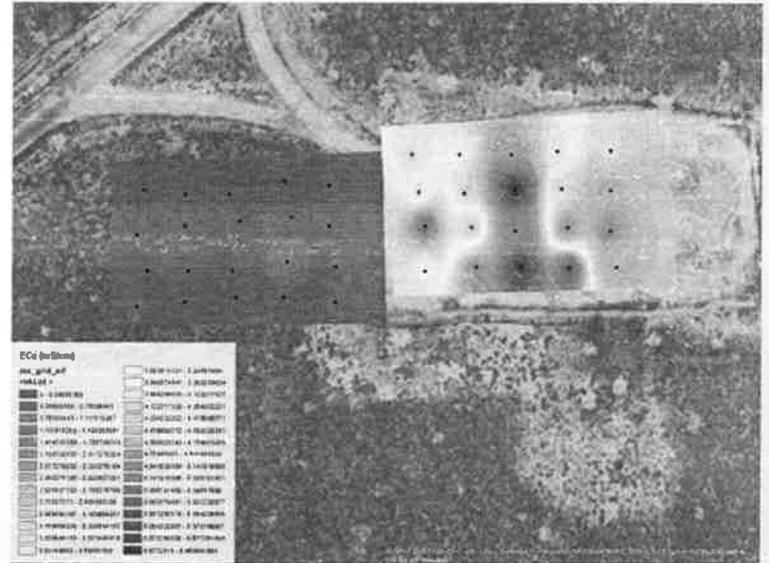
Overflow channel system with high spring runoff

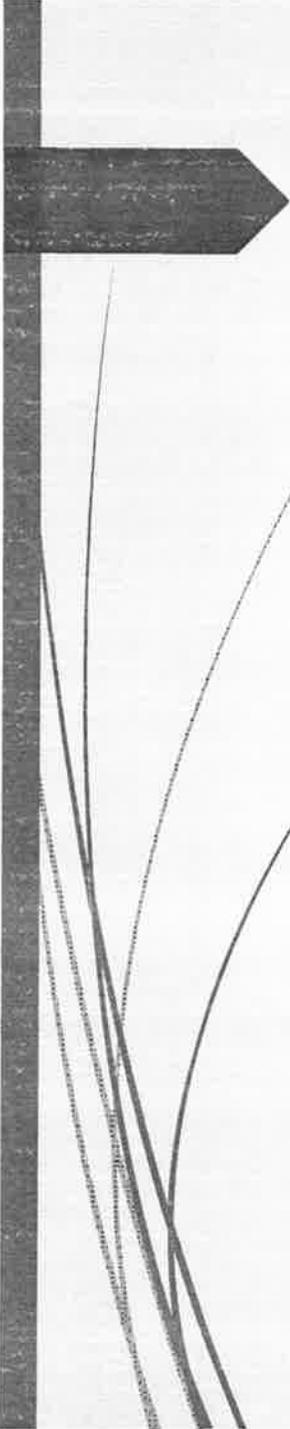




Green River District Vernal FO/Price FO

- Arid Land Study- Since 2014- Ongoing
 - Reclamation guideline for successful strategy of disturbed lands in arid environments.
 - Plugged and abandoned well pads (example).
 - Filed Site Scanning with hand-held EMI device
 - EMI Map comparing salinity levels in undisturbed (left) and disturbed sites (right). Salinity levels increase going from blue to red.
 - Disturbed sites had consistently higher salinity levels.





Green River District Vernal FO/Price FO (Continued)

- Other Large Projects

- Gateway South Transmission Line Power Project (Wyoming to Central Utah)

- EIS completed (Development/Construction Phase)

- Numerous tower locations with adjacent poles/facilities)traversing watersheds within Green River.

- Travel Management Revisions

- Route evaluations- San Rafael Swell Area

- Dingell Act Management Changes

- Designation of sections of Green River as Wild and Scenic

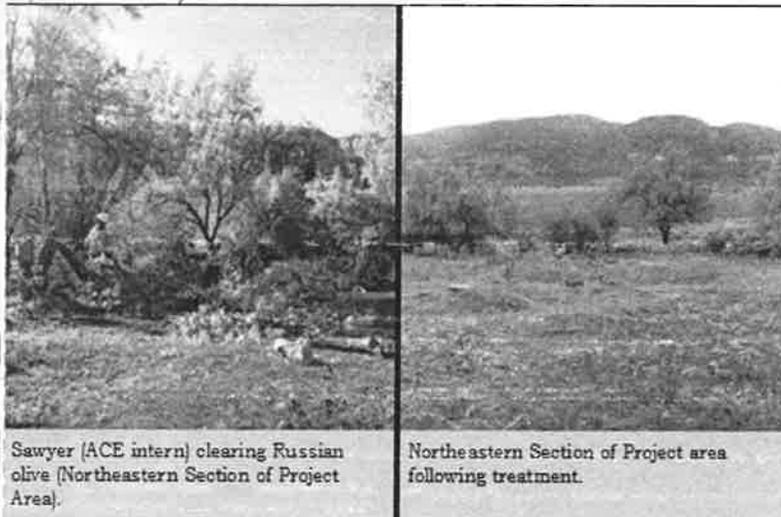
- Revised recreation plan for popular floating areas where BLM manages parcels with access.

- Workshop/training mid April with stakeholders in Price Utah



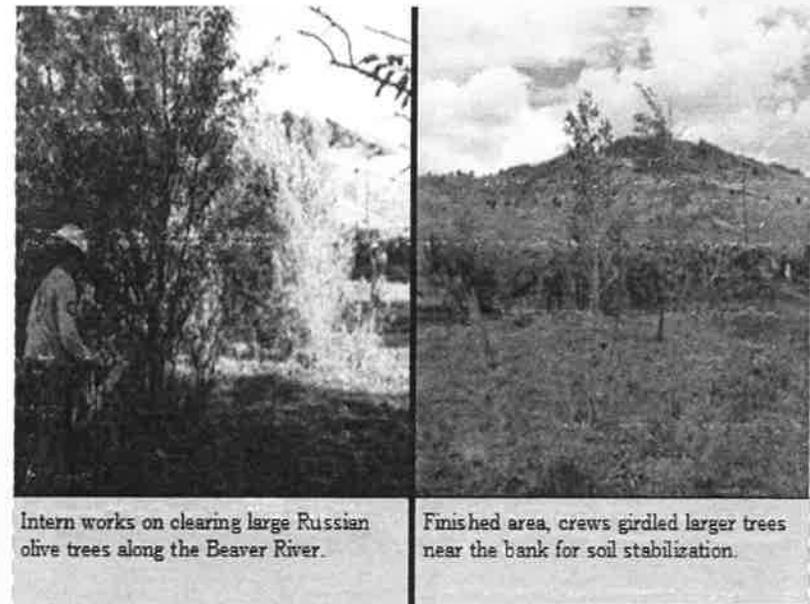
➤ Cedar City FO – Beaver River Restoration

- Promoting natural stream/floodplain processes - including beaver colonization (to the extent possible with Dam operation)
- Russian Olive & Tamarisk Removal, Streambank & channel stabilization
- Establish/expand native Cottonwood/Willow galleries
- Recreation management – foot trail management, parking lot construction, limiting unauthorized vehicle access in riparian zone.
- Work completed through WRI/UPCD by American Conservation Experience Handcrews



Sawyer (ACE intern) clearing Russian olive (Northeastern Section of Project Area).

Northeastern Section of Project area following treatment.



Intern works on clearing large Russian olive trees along the Beaver River.

Finished area, crews girdled larger trees near the bank for soil stabilization.

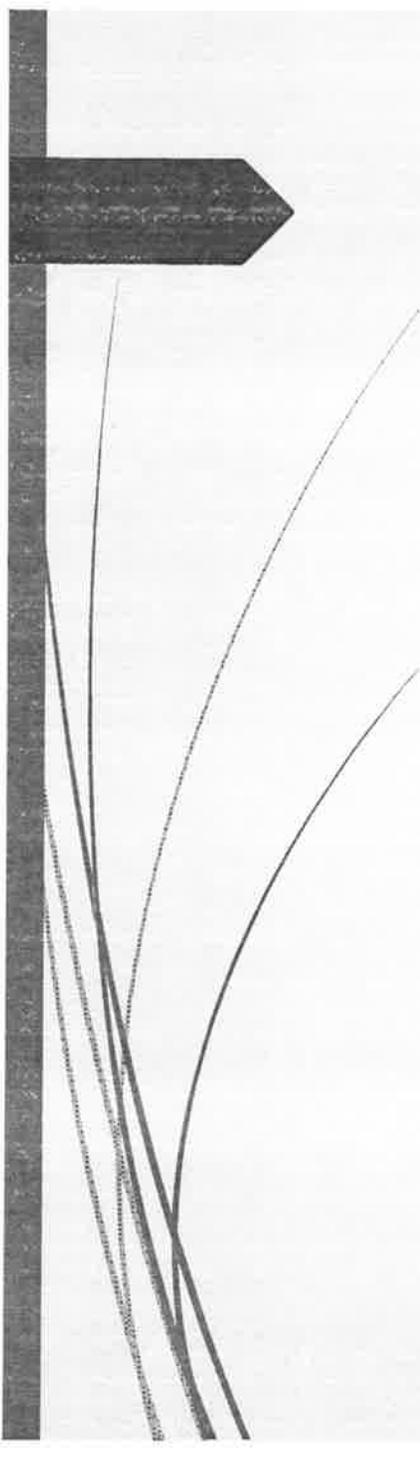


Color Country District **Cedar City FO**

- ▶ Pine Valley Water System EIS
 - ▶ Baseline ground water data collection/modeling (2020)
 - ▶ Use of GBCAS Modified Model
- ▶ Riparian restoration projects
 - ▶ Aquatic AIM Class 2020

West Desert District **Fillmore FO**

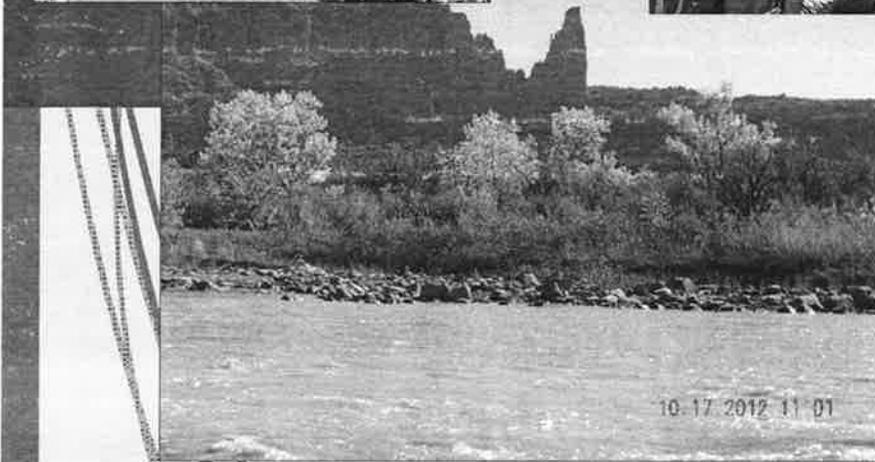
- Sevier Lake Playa EIS- (Baseline data collection)
 - Quarterly monitoring of ground water levels/water quality.
 - Surface monitoring of flows into Sevier Lake



BLM National Aquatic Monitoring Framework (Aquatic AIM)

- ▶ BLM UT- Lead states for Aquatic AIM implementation- (BLM Tech Reference 1735-2) July 2017 The Bureau of Land Management (BLM) developed the National Aquatic Monitoring Framework (NAMF) (Miller et al. 2015)
- ▶ Involves inventory of systems, as well as suggested covariates.
- ▶ Work with Field Offices in developing Aquatic AIM implementation/monitoring/and reporting.
- ▶ Utah Training scheduled for Cedar City July 21, 2020

Riparian Restoration





BLM Riparian Restoration Approach

- ▶ Invasive woody species removal
 - ▶ Restore natural stream/floodplain processes
 - ▶ Improve habitat for aquatic and riparian dependent species.
 - ▶ Partners- entire watershed approach.

- ▶ Riparian Exclosures
 - ▶ Exclude livestock and other uses from riparian corridor to improve riparian, stream, and water quality conditions.

- ▶ Large-scale ecologically based riparian and stream/floodplain restoration

- ▶ Partnerships



BLM Riparian Restoration

► **Moab FO – Riparian Enclosures**

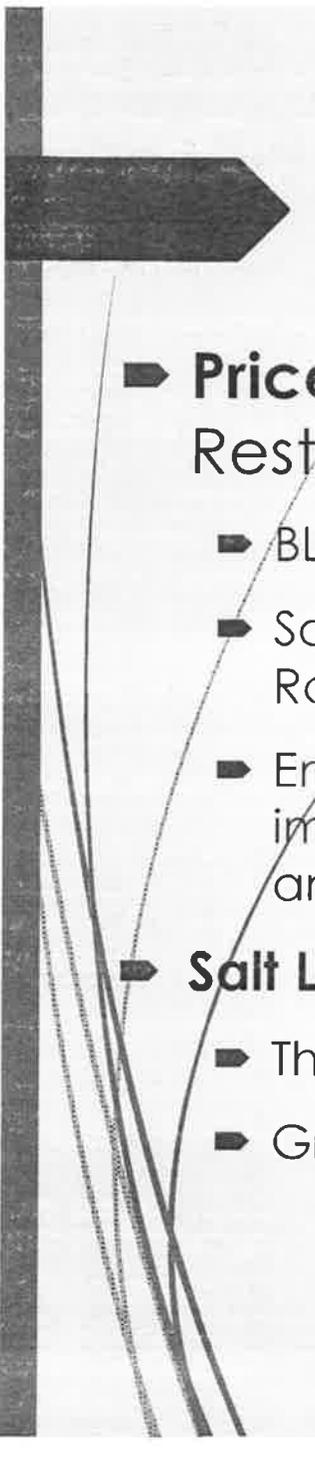
- Constructed riparian enclosures in areas with sensitive or saline soils to improve riparian, aquatic, and water quality conditions.
- Work completed with Canyon Country Youth Corps and BLM
- Partnered with USGS to study Enclosure effectiveness in Sediment/Salinity reductions and water quality improvement, and assessment of grazing impacts.

► **Kanab FO**

- Completed 3 river miles of Tamarisk/Russian Olive removal on E. Fork of the Virgin River.

► **Salt Lake and St George FO's**

- Installed riparian enclosures to improve riparian wetland & stream conditions.



BLM Riparian Restoration

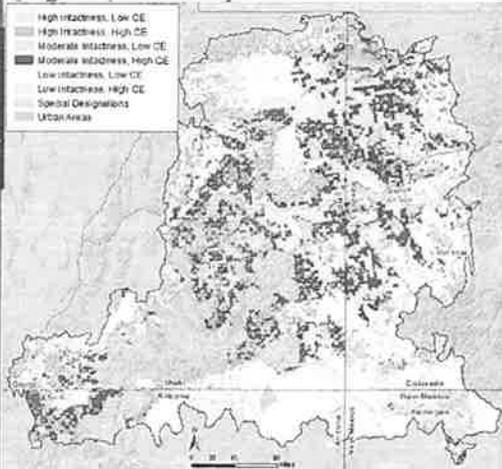
- ▶ **Price Field Office** - San Rafael River Cooperative Restoration Plan

- ▶ BLM, State/Federal partners, Utah State University
- ▶ Science-based restoration plan for the BLM portion of the San Rafael River under development
- ▶ Emphasis on restoration of stream/floodplain functions, improvement of habitat for endangered native fish populations, and water quality improvement.

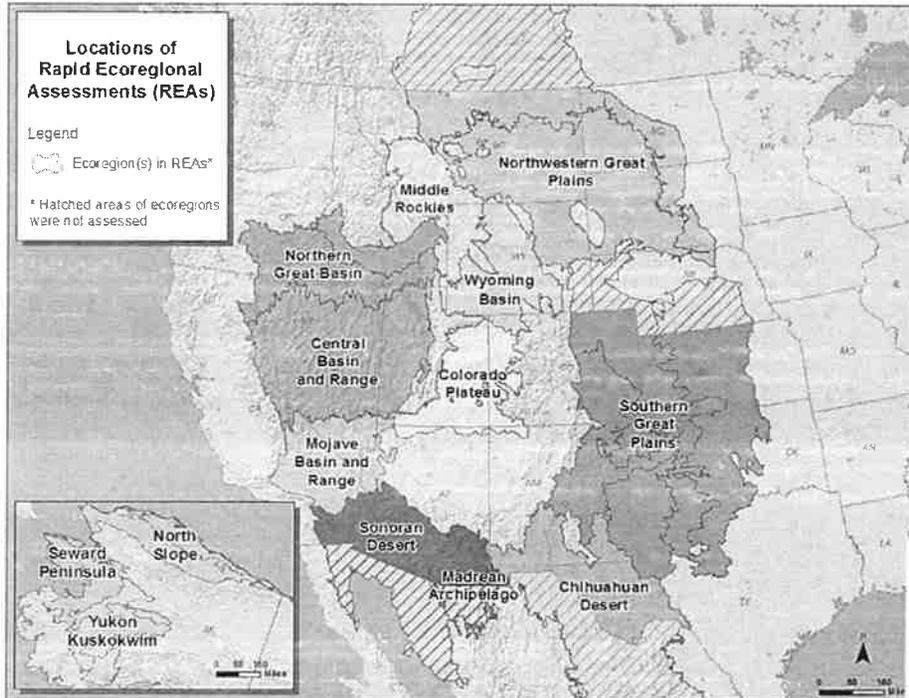
- ▶ **Salt Lake FO**- Bear River Watersheds

- ▶ Three Creeks- Water Rights/Water Development project
- ▶ Grazing allotment adjustments and upland water development.

Partnerships and studies impacting water quality 2019

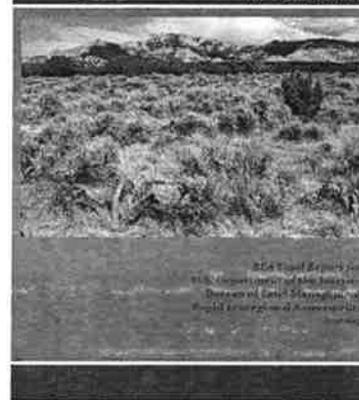


BLM Partnerships & Studies (Historic)



- REA – Rapid Ecoregional Assessments
- <https://landscape.blm.gov/geoportal/catalog/REAs/REAs.page>
- Regional/Landscape Based Assessment
 - UT = Central Basin & Range, Colorado Plateau

CENTRAL BASIN AND RANGE RAPID ECOREGIONAL ASSESSMENT FINAL REPORT





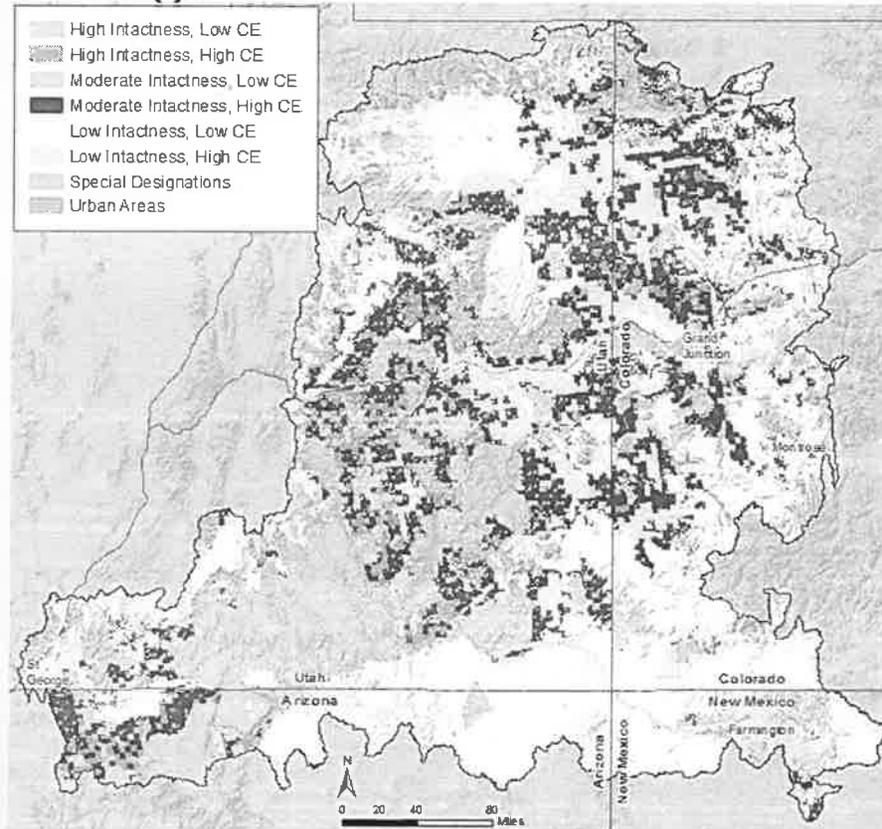
BLM Regional Ecosystem Assessments (REA)

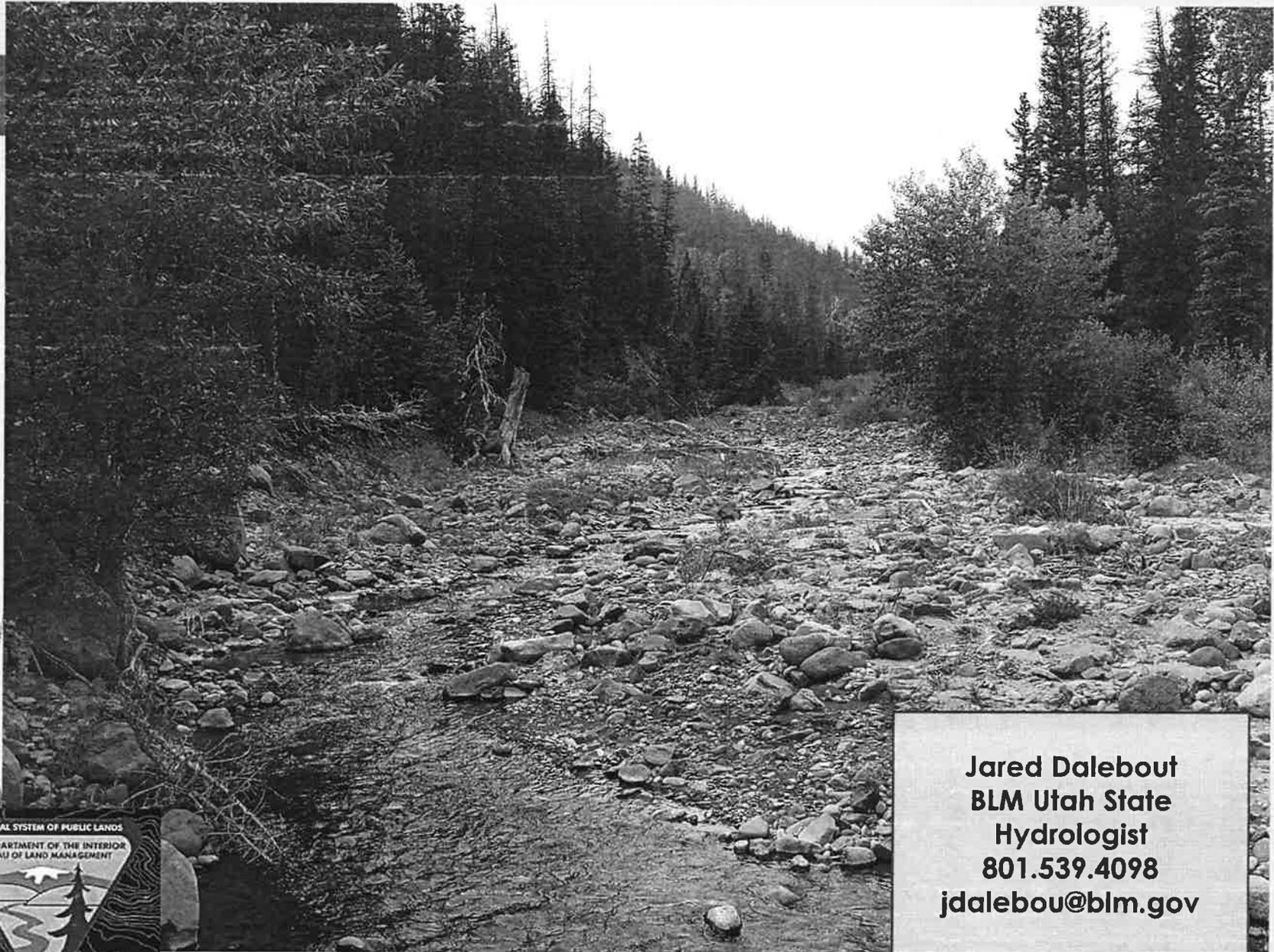
► Utah Step-down Aquatics Analysis

- To be completed by Conservation Biology Institute (COP REA)
- Statewide analysis that incorporates Utah-specific datasets that were not used in REAs.
- Purpose of Step-down is to identify Restoration and Conservation areas and important habitat types in Utah
- Analysis will incorporate:
 - chemical and biological water quality, elements,
 - water quantity,
 - water development (dams, diversions, etc),
 - native aquatic species distribution,
 - connectivity,
 - and others

How are Ecoregions Assessed?

The various models require and produce hundreds of datasets and dozens of maps which can be used in regional planning.





Jared Dalebout
BLM Utah State
Hydrologist
801.539.4098
jdalebou@blm.gov





UDAF Conservation Program Update

MARCH 4, 2020



ARDL Program

- ▶ Agriculture Resource Development Loans
- ▶ "On Farm" projects, Currently no administrative fee
- ▶ All loans start at the local Conservation District level. Must be approved by local CD supervisors, then is passed to ARDL program
- ▶ May work in conjunction with grants and other funding for projects

ISM Grants



UTAH DEPARTMENT OF
AGRICULTURE AND FOOD

- ▶ Yearly Application Process
- ▶ Dynamic ranking system (SIIPA tool)
- ▶ January 1, 2021 –start date for contract lasting 1 calendar year
- ▶ \$2 million available
- ▶ Trying to put emphasis on new invaders in the state
- ▶ 1A category – special emphasis funding those weeds
- ▶ Cap on large scale \$150,000 Cap on small scale \$20,000
- ▶ Special multi year projects may exceed one year cap

GIP



UTAH DEPARTMENT OF
AGRICULTURE AND FOOD

- ▶ Grazing Improvement Program
- ▶ Producers meet with local GIP coordinator
- ▶ Create project plan
- ▶ Applications Due to Troy Forest – tforest@Utah.gov
- ▶ Ranked by committee
- ▶ Only contract with producer or permit holder, not with any agency
- ▶ \$2 Million available
- ▶ 50% cost share on private and 75% on public land

Coalmine Offset



UTAH DEPARTMENT OF
AGRICULTURE AND FOOD

- ▶ Program funds Salinity Control Projects to offset mine discharges
- ▶ Salinity Projects selected with DWQ input
- ▶ Anywhere in the Colorado basin
- ▶ Priority given to the watershed where the funds were generated
- ▶ Projects require 25% cost share
- ▶ Projects awarded according to cost per ton of salt control
- ▶ Program Manager: Mark Quilter – mquilter@Utah.gov

Colorado River Basin Salinity Control Project: Basin States Fund



UTAH DEPARTMENT OF
AGRICULTURE AND FOOD

- ▶ Projects are currently selected by NRCS and Bureau of Reclamation
- ▶ Funds are sent to UDAF for administration and program promotion
- ▶ Wildlife & Habitat Enhancements – project funds are available
- ▶ Can be partnered with other project dollars (ISM, GIP, WRI, NRCS)
- ▶ Program Manger: Mark Quilter – mquilter@Utah.gov



UTAH DEPARTMENT OF
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Water Optimization Grant

- ▼ FY19 - \$3 million available
- ▼ Awarded \$2.7 million in grants across the state
- ▼ Proposed additional \$3 million – awaiting legislation
- ▼ Specific criteria
- ▼ Work with local CD Planners, Watershed Coordinators, and UDAF staff

Stream Habitat/Watershed Improvements

2019

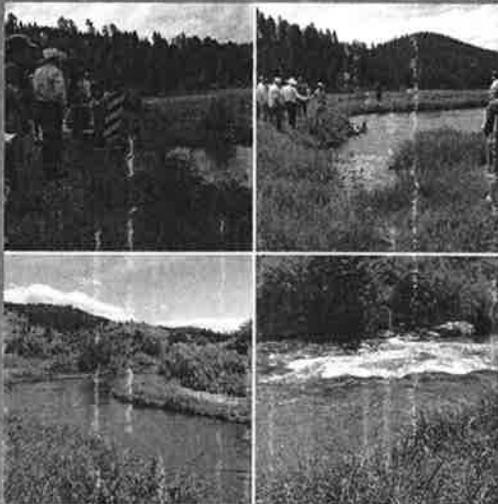


Don Wiley

Aquatic Habitat Coordinator
Utah Division of Wildlife Resources

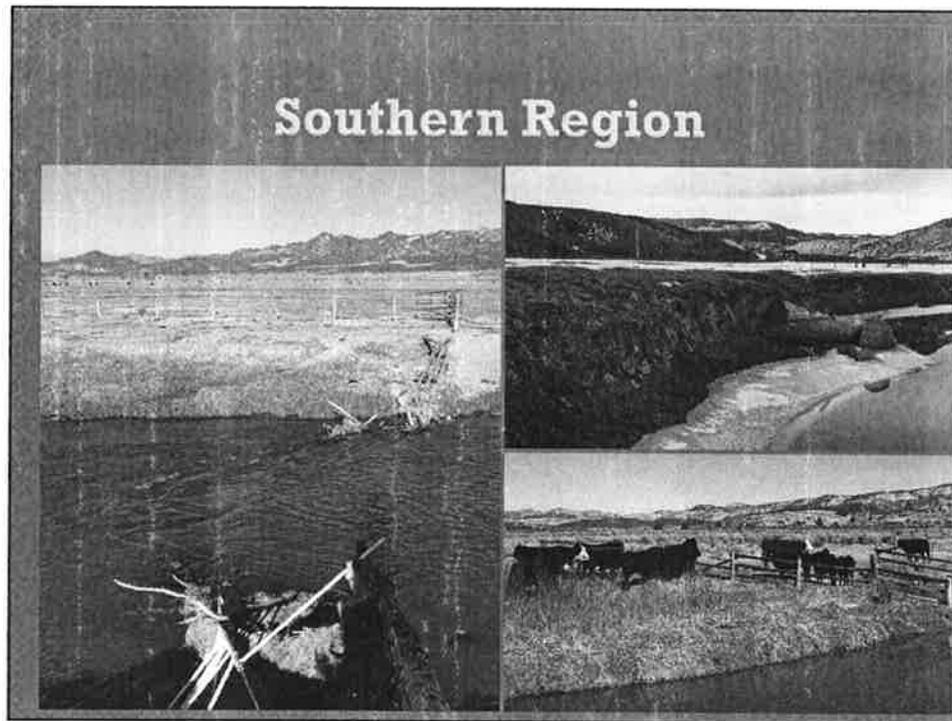


Training



Wetland Delineation – 3
biologists

Fund training of UDWR
biologists in each region
in stream restoration
techniques



Projects

- Instream structures
- Bank sloping
- Riparian fences
- Grazing management
- Seeding and planting

BEFORE

AFTER

Original Projects - Maintenance



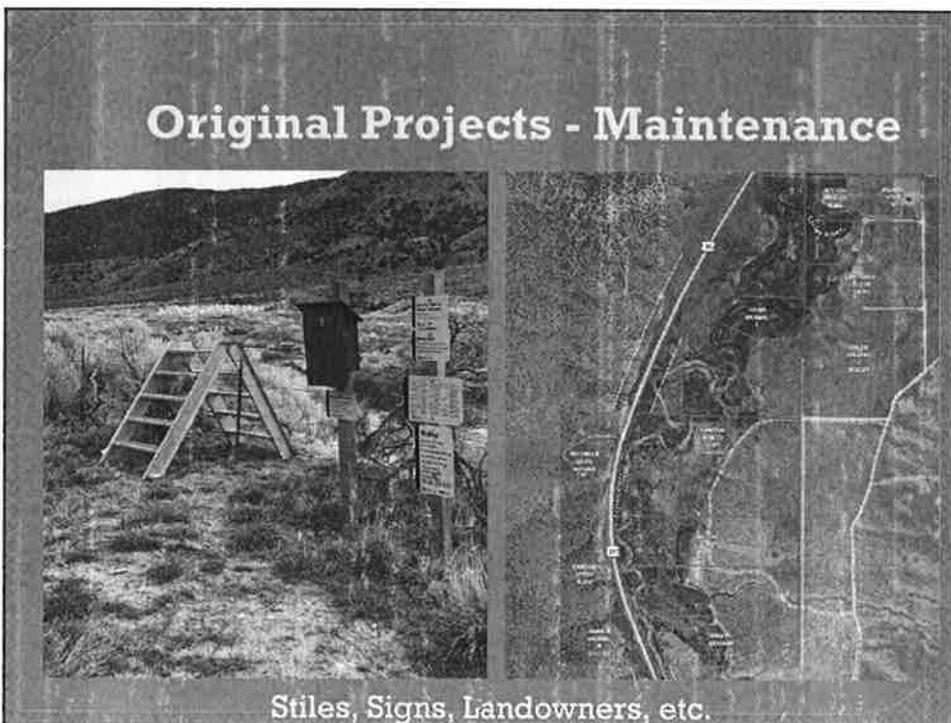
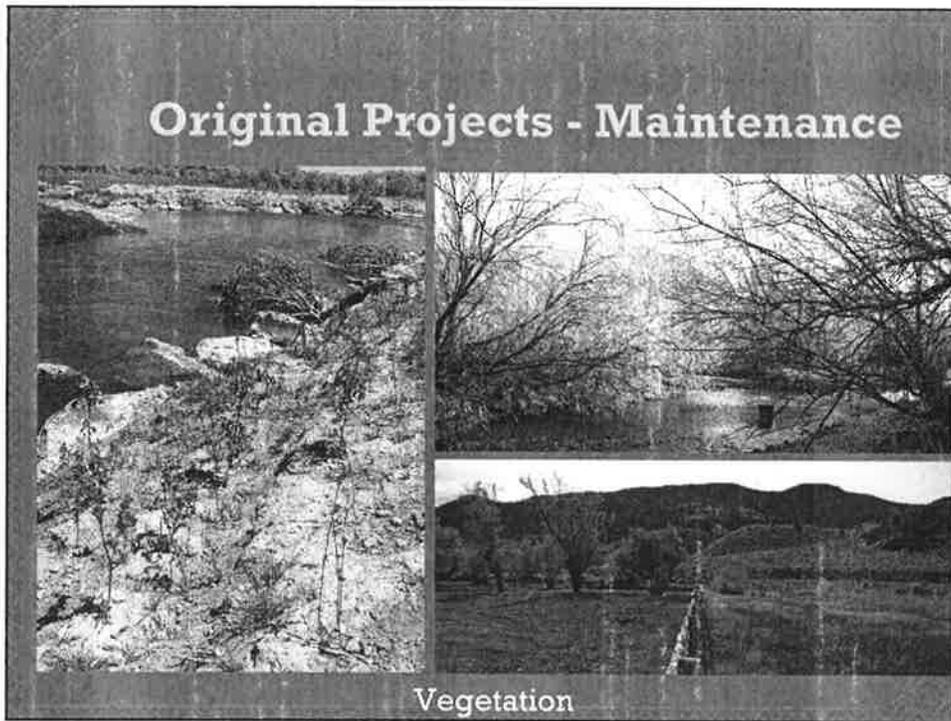
Riparian Fences: ~60 miles

Cable Crossings and Watering
Lanes: ~85

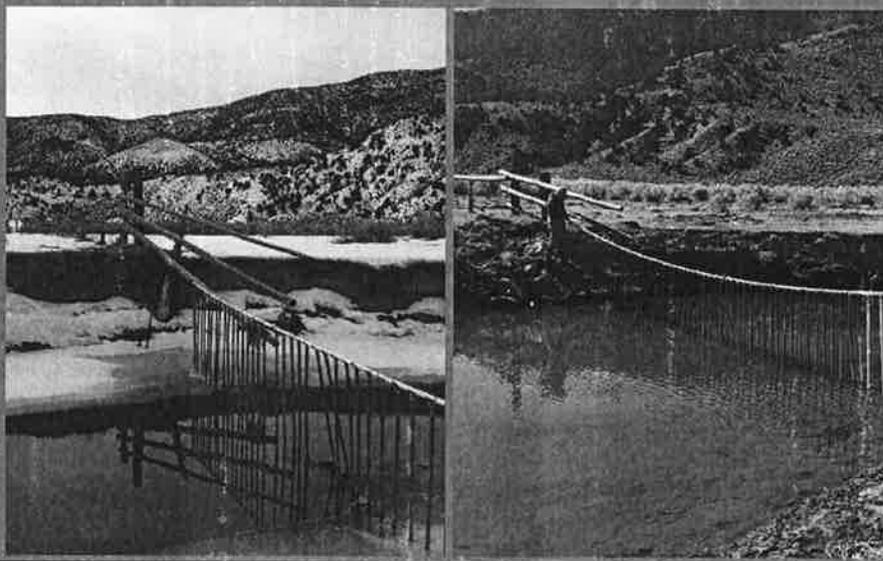
Original Projects - Maintenance



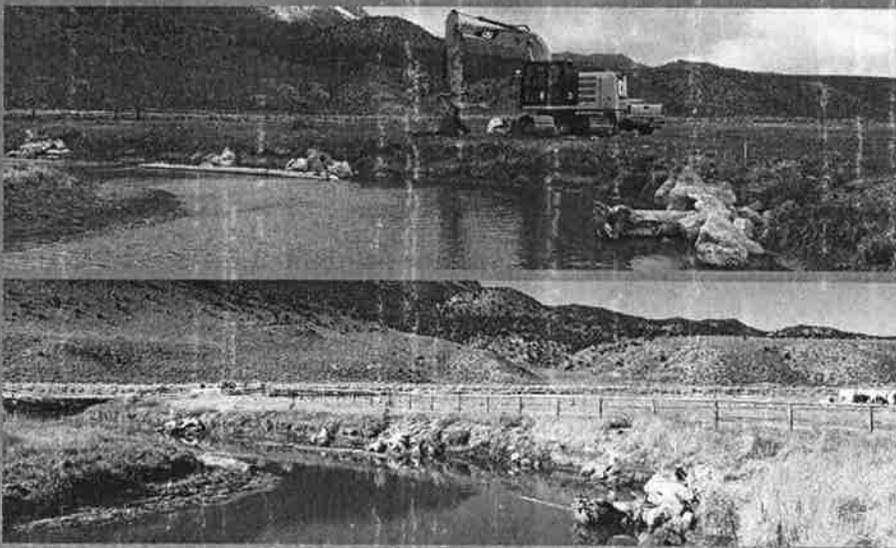
Instream structures

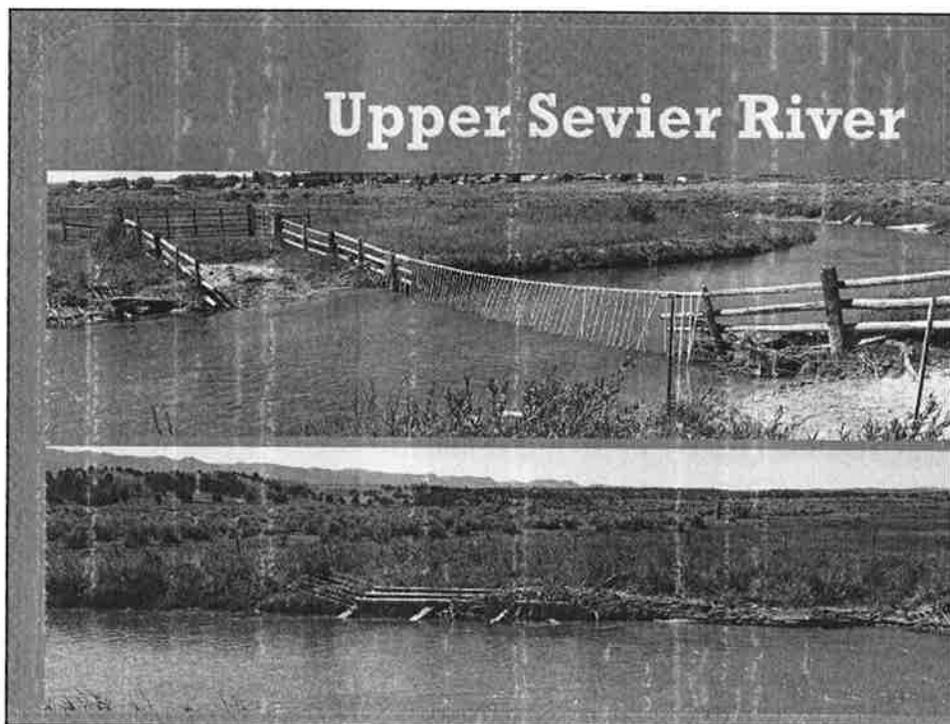
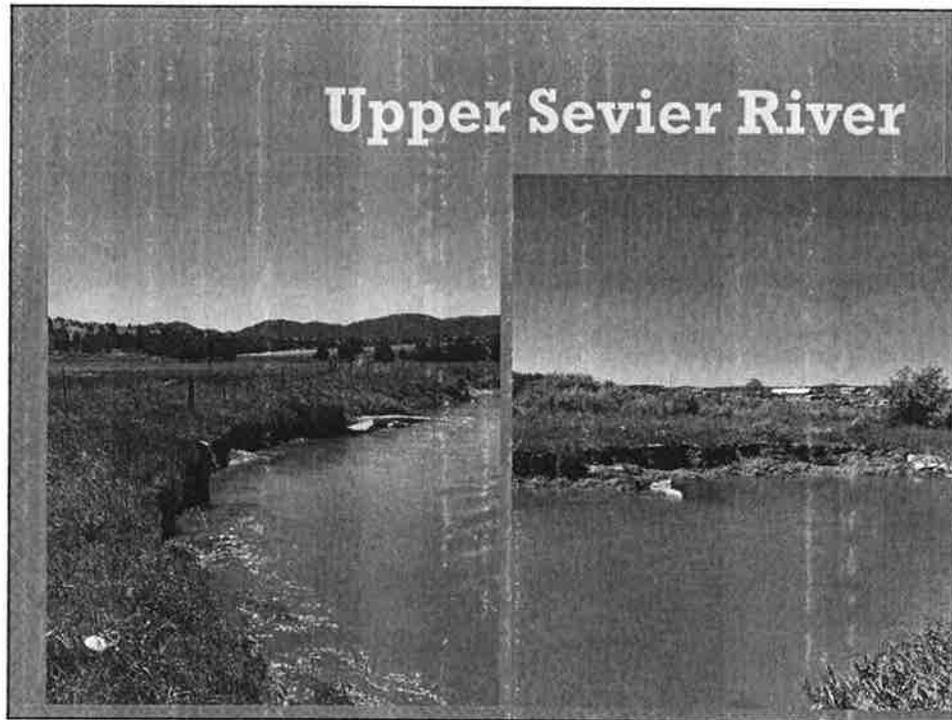


East Fork of the Sevier River

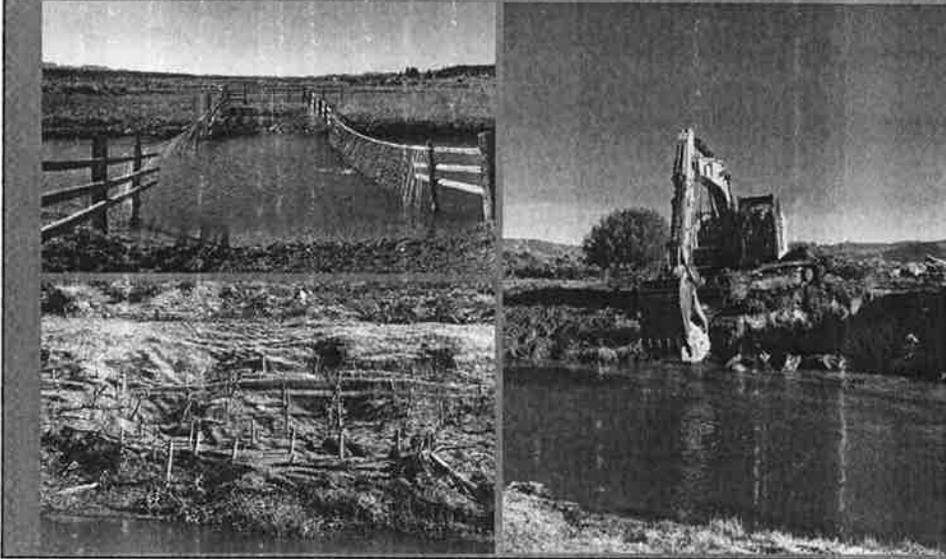


East Fork of the Sevier River

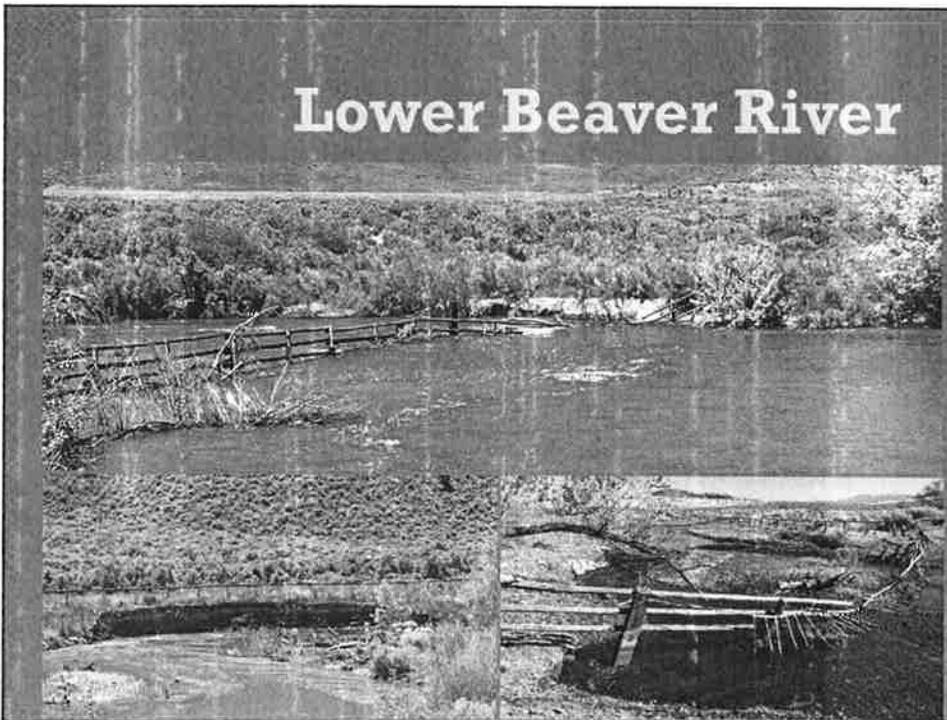


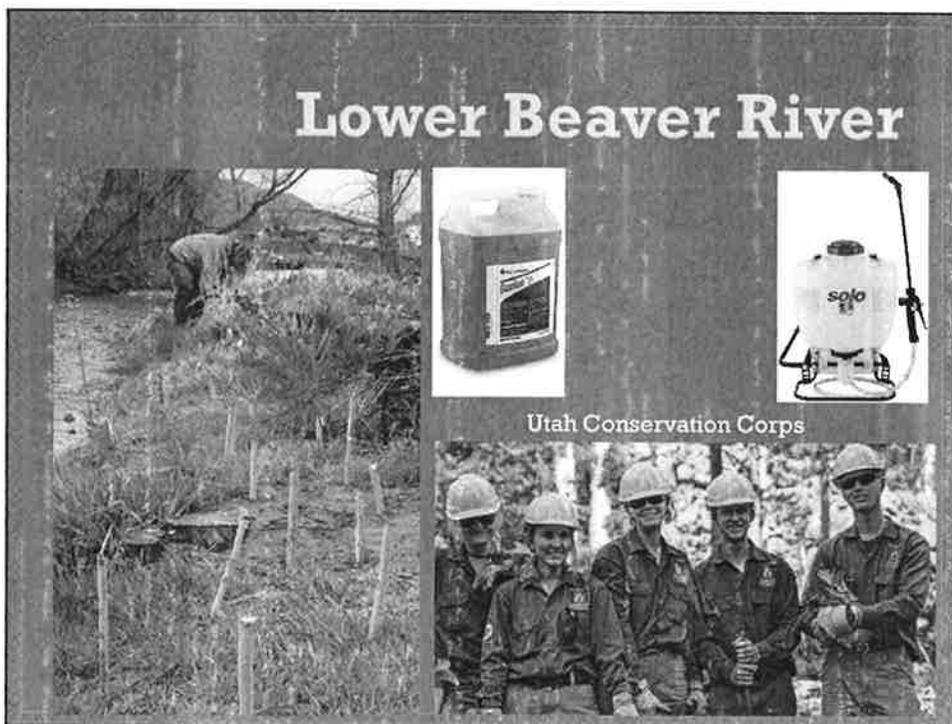
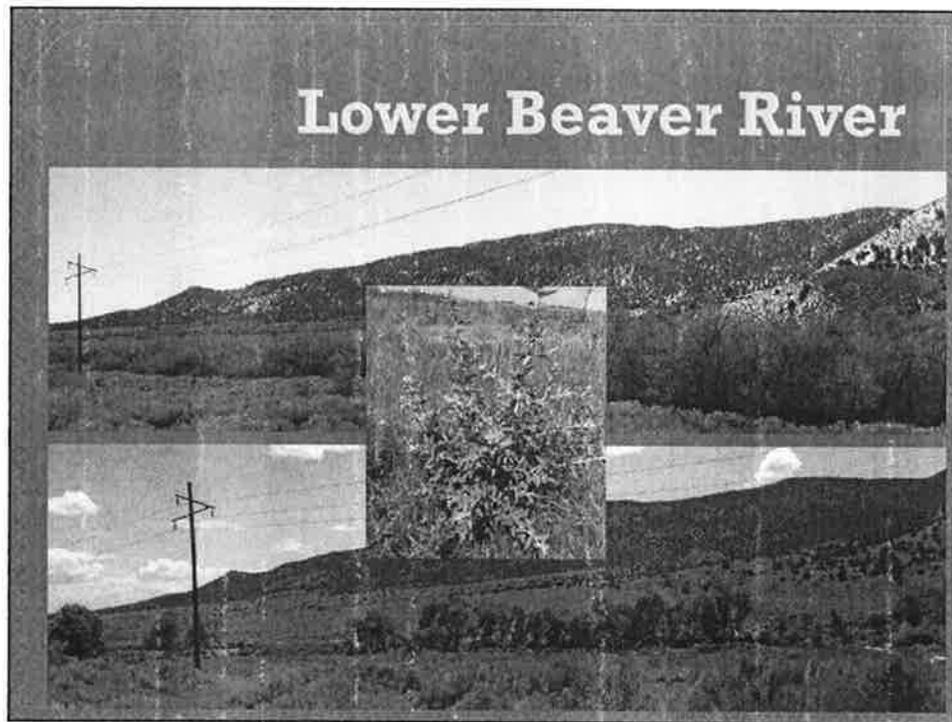


Upper Sevier River



Lower Beaver River





Northern Region



Beaver Dam Analogues (BDA)

East Canyon Creek
North Eden Creek
Fish Creek

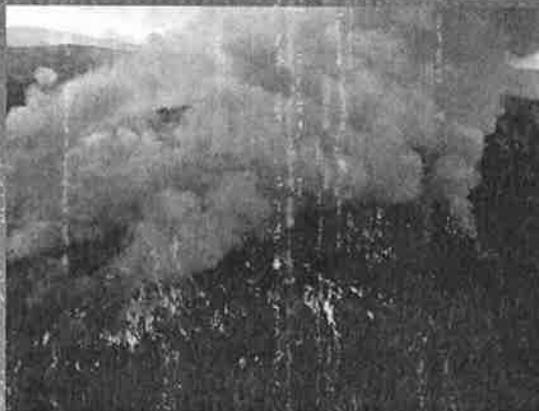


Huff Creek

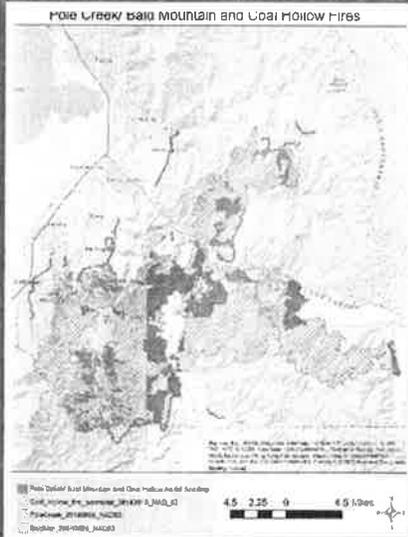
Huff Creek Riparian Planting (Chalk Creek Drainage)
Fencing both sides of stream (4.75 miles)
Planted 500 willows and 100 cottonwoods
Shrubs to be planted in spring 2020



Central Region



**Pole Creek/Bald Mountain and Coal Hollow
Fire Scar Seeding**



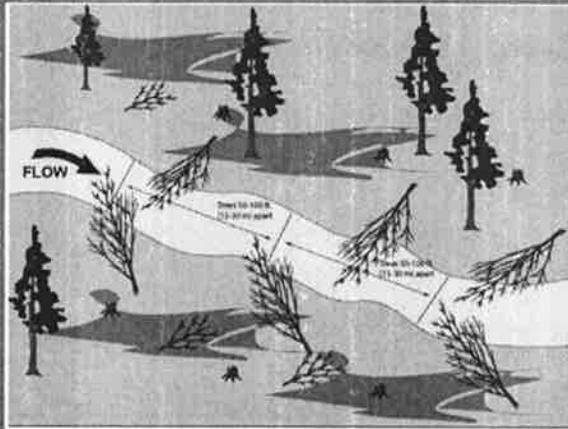
- Aerial seeding of approximately 31,000 acres. Bitterbrush and Four Wing Saltbush via ATV drill seeders
- Reduce recovery time for critical big game habitat and severely impacted drainages (Nebo Creek and Diamond Fork)
- Seeding began in Fall 2018, some continued into the winter (some areas seed on snow)



Directional Tree Felling

Funded by Watershed Restoration Initiative (UDWR and Forest Service)
 4-5 Person Utah Conservation Corps Crew for 9 days
 Directional felling of over 90 fire killed trees (minimum DBH of 16 in but average DBH over 22 in)
 1/2 mile of upper Nebo Creek, 1 1/4 mile upper Holman Creek
 Reduce down cutting, promote sedimentation, add roughness to stream and riparian zone, fish habitat, etc.





In-channel Tree Felling

What – Directionally felling trees in a staggered herringbone pattern with tops pointed upstream.

Purpose – Intended to trap floating debris and suspended sediment. Over time, large woody material dissipates stream energy, provides cover and habitat for fish while providing long-term channel stability.

Effectiveness – Directional felling appears to work better when implemented in gentle gradients, high in the watershed, and placed in a series. Problems include complete structure failure from large storms.

Where

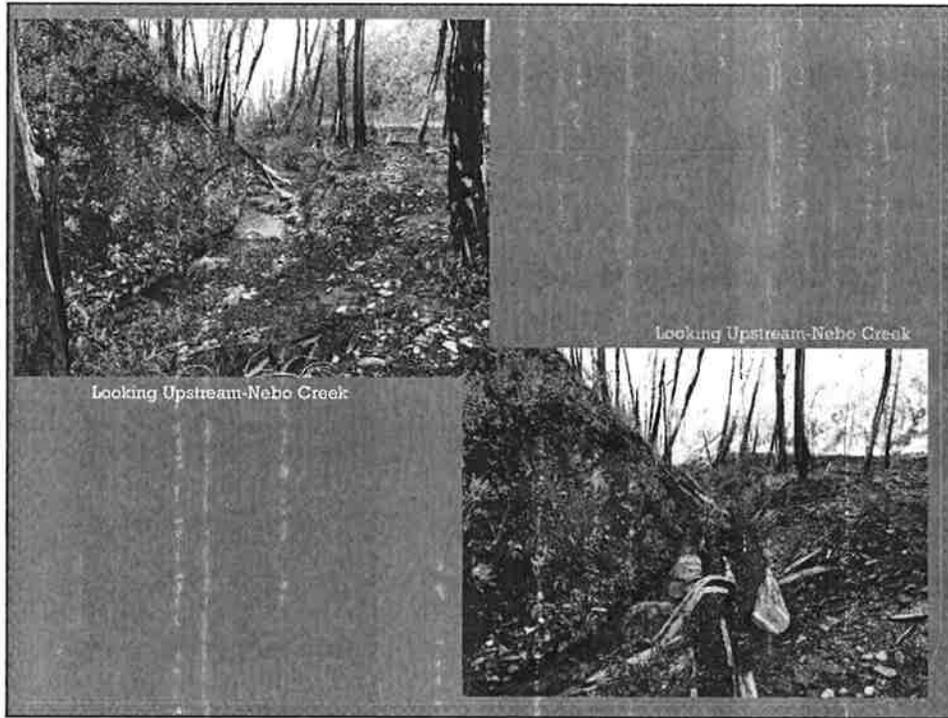
- Areas of high-burn severity.
- Channels where energy dissipation is necessary.
- Channels with unstable bedload and high sediment-loading potential.



Spring 2019 Pilot Trees

- Photos in October 2019
- Significant sedimentation
- No lateral erosion (yet)
- Downstream pool formation





Department of Natural Resources

UTAH'S WATERSHED RESTORATION INITIATIVE

Projects Maps About Us Register Login

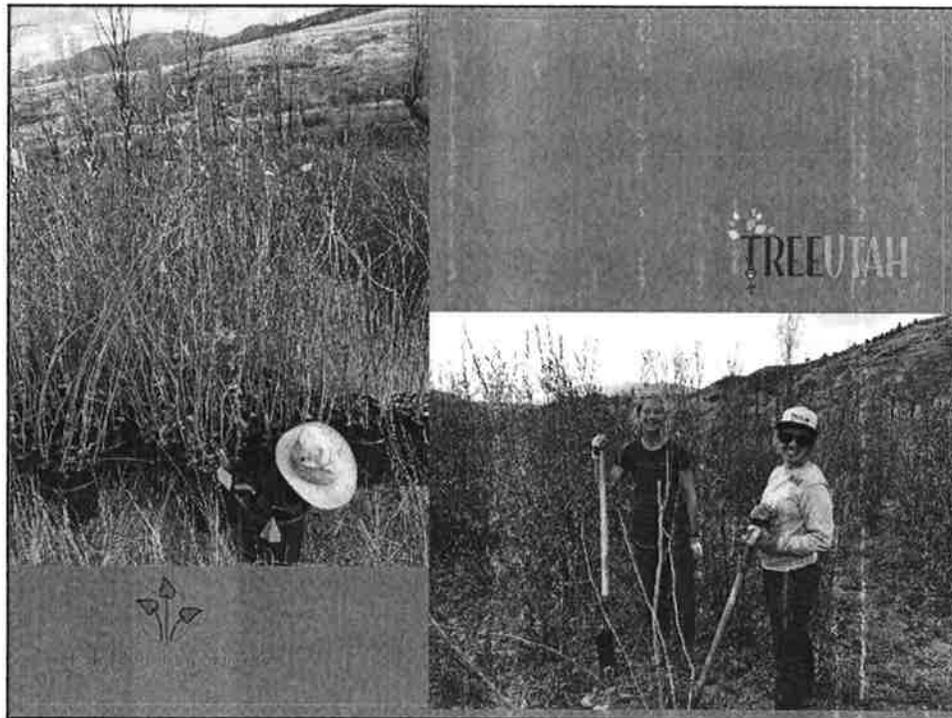
Riparian Plantings

Lower Diamond Fork Post Fire Riparian Rehabilitation

- Facilitate post fire recovery of Narrowleaf Cottonwoods by planting approximately 1,800 D60 plants within the lower Diamond Fork riparian corridor impacted by the Bald Mountain and Pole Creek fires.
- Capture wildfire created sediment and debris high in the system and with these create instream habitat for trout and enhance riparian function.
- Approximately 1400 extra trees to be planted in the Nebo Creek drainage-pending final USFS approval and implementation by Tree Utah

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State of Utah | 2020



Southeast Region

Miller Creek
Install BDA's
Planted grass,
forbes, and
shrubs



Huntington Creek – Planning

Seeley Fire (2012)
Improve Fish Habitat
Decrease Erosion
Improve Riparian Habitat



Northeast Region

Meadow Creek

1.2 miles of riparian
plantings:

- 1100 cuttings: Coyote willow, green willow, Fremont cottonwood, narrowleaf cottonwood, red dogwood
- 180 potted: chokecherry, hawthorne, boxelder
- 300 bareroots: buffaloberry, golden currants



Meadow Creek BDA Experimentation

Constructed 5 BDAs in two places.
Will monitor over the next couple of
years. Possibly install additional
BDA's, if needed.



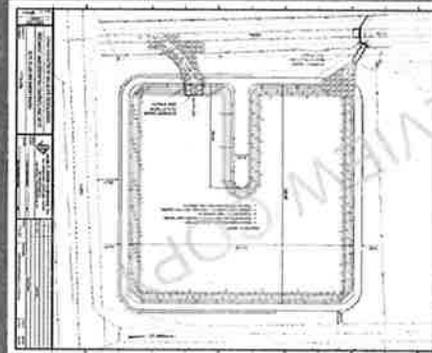
Future work: Exclosures



Pelican Lake sediment control Phases I

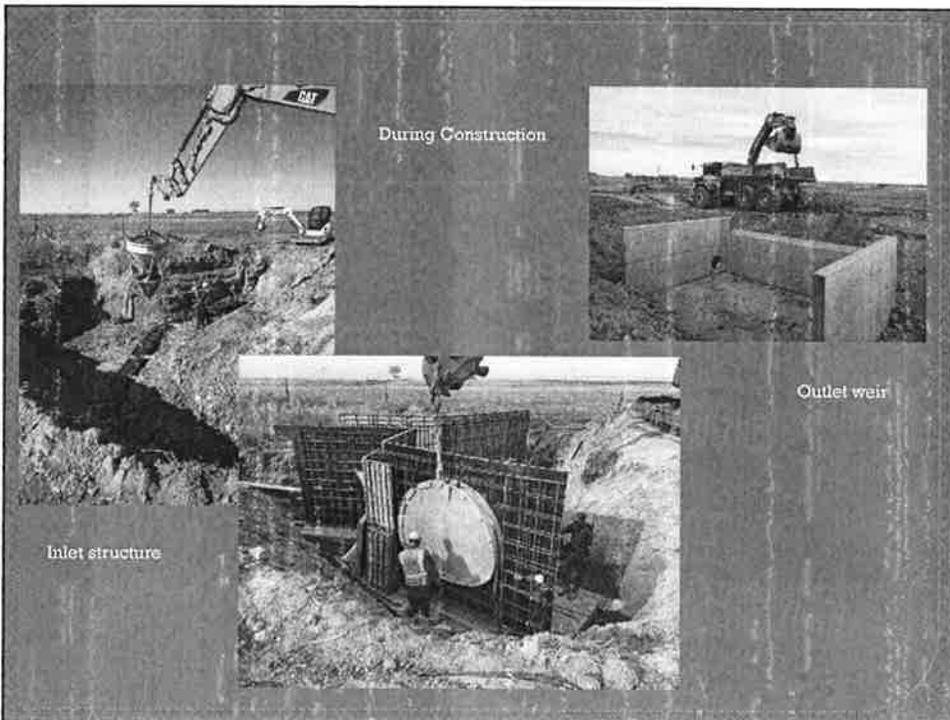
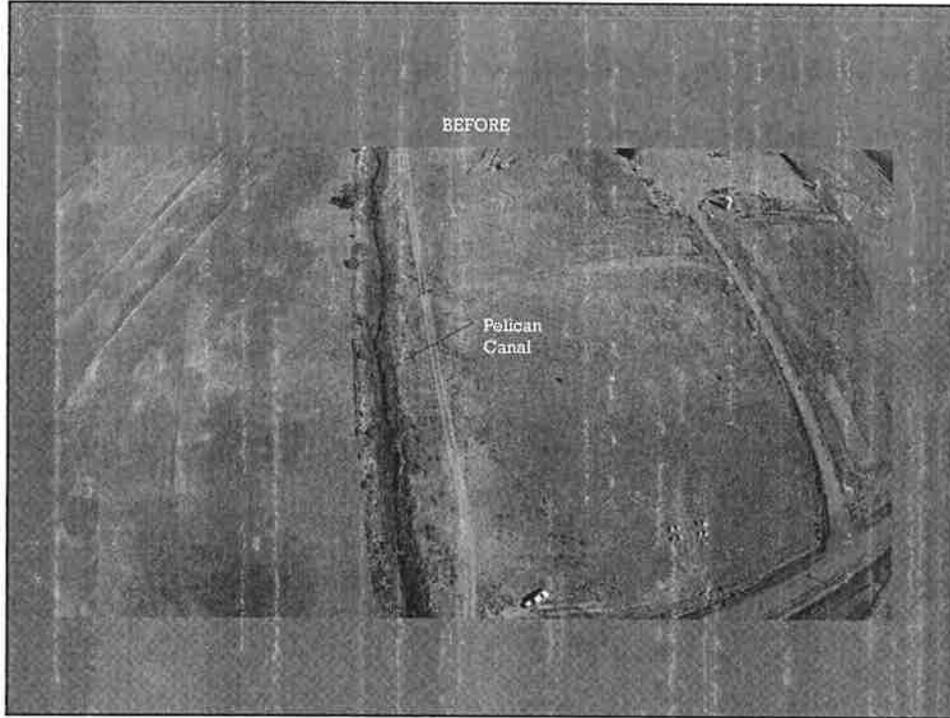
Phase I - construct a 3.75 acre sediment catch basin directly above Pelican Lake.

Purpose = prevent/reduce future sediment deposits into Pelican Lake & have the ability to remove deposits from the system which also benefits the land owner who wants soil for his fields.



Sediment Catch Basin

- Two major concrete structures, one in the canal for the inlet structure, one as the weir structure on the outlet of the basin.
- 19,000 cubic yards of material removed = about 15,000 cubic yards of material room to be stored and removed before it enters Pelican Lake



During Construction (90% complete)

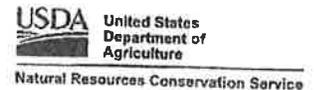


Phase II Canal Stabilization

NRCS has awarded private land owners \$150,000 for canal stabilization work on their properties that border the canal. We are assisting them with removal of old concrete structures and installation of new armored cattle crossing/watering structures.



**USDA-Natural Resources Conservation Service (NRCS)
Watershed Flood Prevention Operations (WFPO) - PL566 Planning/Design/Construction**



Authority: Public Law 83-566 (PL566) the Watershed Protection and Flood Prevention Act of 1954, as amended.

Scope: National Watershed Program Manual (NWPM) sets the policy for all watershed plans developed under the Watershed Program. No project funded for planning or implementation under PL566 authority unless it meets all requirements set forth in the NWPM.

Project Sponsors: Local organizations (as defined in PL566, Section 2), that have legal authority and resources to install, operate, and maintain works of improvement.

Overview: Program requires the development of physically, environmentally, socially and economically sound watershed project plans with actions scheduled for implementation over a specified period of years. Actions are within a specified geographic area by sponsors for the benefit of the general public.

General Purposes:

- i) Preventing damage from erosion, floodwater, and sediment
- ii) Furthering conservation, development, utilization, and disposal of water
- iii) Furthering conservation and proper utilization of land

Authorized Project Purposes: CS= Cost-Share

- | | |
|---|---|
| 1) Flood Prevention (Flood Damage Reduction)-100%CS | 6) Municipal & Industrial Water Supply-50% CS |
| 2) Watershed Protection – up to 75% CS | 7) Water Quality Management – % TBD planning |
| 3) Public Recreation – 50% CS | 8) Watershed Structure Rehabilitation-65% CS |
| 4) Public Fish and Wildlife – 50% CS | |
| 5) Agricultural Water Management – up to 75% CS | |

Maximum Watershed Size: 250,000 acres → can be separated sub-watersheds.

Maximum Structure: No structure providing more than 12,500 ac-feet of floodwater detention or > 25K total capacity

Economics: Show allocations per Purpose. Benefits and costs may be expressed in monetary & nonmonetary terms. Must contain benefits directly related to agriculture, including rural communities → account for 20% of the total benefits.

Recreation Development Limitations:

- 1 development in watershed less than 75,000 acres
- 2 developments for watersheds 75,000 to 150,000 acres
- 3 developments (max) for watersheds greater than 150,000 acres

Sponsor Responsibilities:

- 1) **Power of Eminent Domain:** At least one Sponsor must have so that it may acquire real property, water, other.
- 2) **Permits and Licenses:** Sponsor must acquire needed permits, and licenses per local, State & Federal laws.
- 3) **Authority to Levy Taxes:** At least one Sponsor must have and exercise authority to levy taxes.
- 4) **Land Treatment above Reservoirs:** Sponsor must obtain agreements from landowners to implement soil conservation plans that meet NRCS Field Office Technical Guide criteria....on not less than 50 percent of the lands situated in the drainage area above each retention reservoir to be installed with Program funds.
- 5) **Public Participation:** Sponsor must arrange and carry out activities that encourage public to participate in planning.
- 6) **Financial:** Sponsor must show evidence of commitment for funding, installing, operating and O&M. Sponsor will perform all contracting for construction of any structure...except upon request NRCS may perform.
- 7) **Watershed Management:** Sponsor must implement needed watershed management features such as permitting, zoning, land use regulations, easements or upstream watershed protection.
- 8) **Municipal & Industrial (M&I) Water:** Sponsor must provide all technical services to implement M&I water supply. USDA to be reimbursed for at least one-half of the cost of M&I storage for current demand and all of the cost of M&I storage for future demand.
- 9) **Operation and Maintenance:** Sponsor use authority to ensure installation, operation and maintenance as planned.
- 10) **Storm and Sanitary Sewers:** Storm & sanitary sewers, or relocations and changes to existing = sole cost of Sponsor.

Contact: Bronson Smart, P.E.
State Conservation Engineer/Program Manager
USDA-NRCS, Salt Lake City, UT
(801) 524-4559 bronson.smart@ut.usda.gov

Contact: Norm Evenstad, P.G.
Water Resources Coordinator
USDA-NRCS, Salt Lake City, UT
(801) 524-4569 norm.evenstad@ut.usda.gov



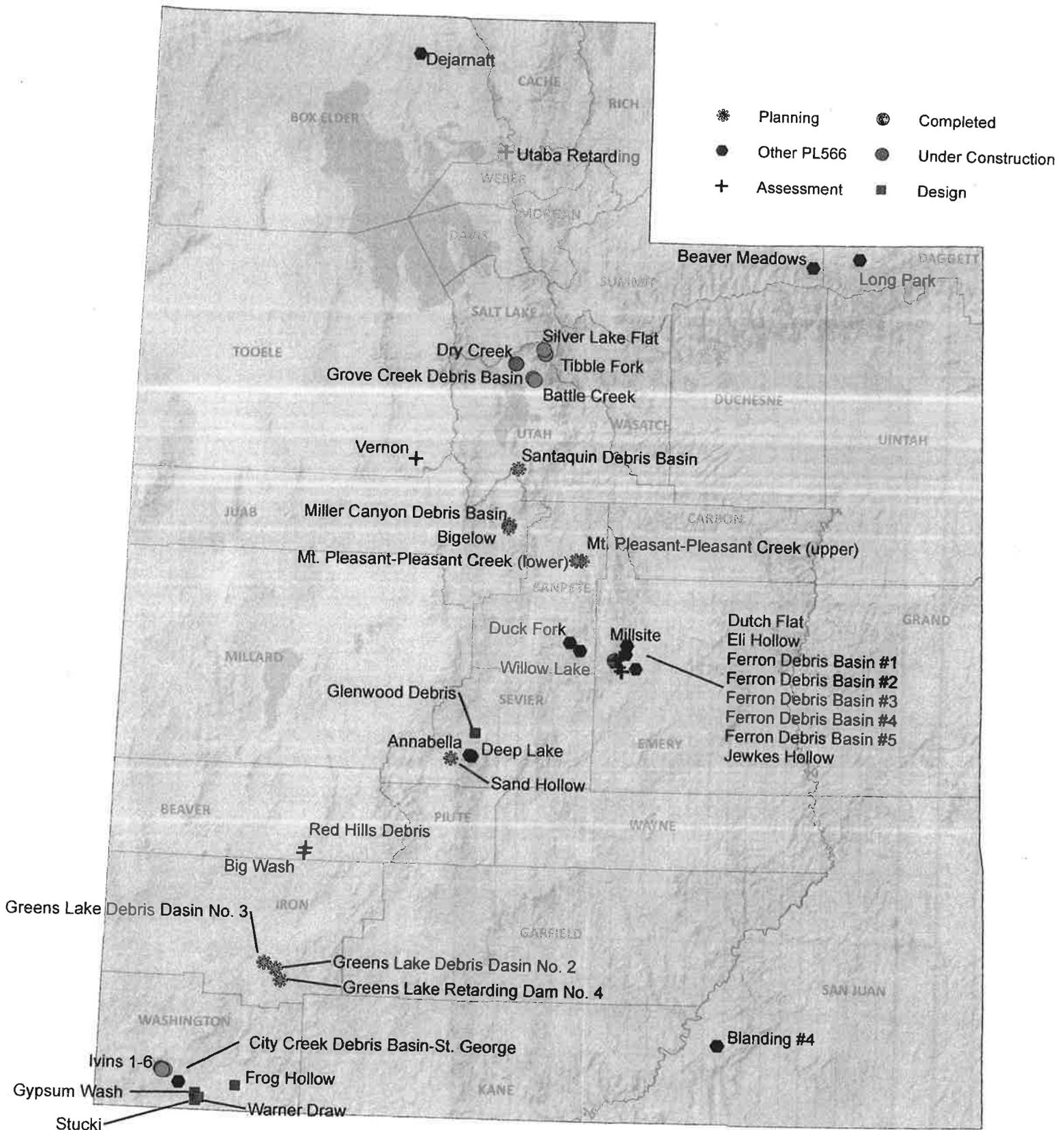
United States Department of Agriculture

Natural Resources Conservation Service

Current
PL566
Watershed
Planning
Design
Construction
\$32M

#	Project Name - PL566 Watershed Planning	Status	County
1	Ashley Valley Watershed	Draft	Uintah
2	Cottonwood Creek Watershed (Huntington to Orangeville)	Draft	Emery
3	Duchesne County Water Conservancy District	Project Priority	Duchesne
4	Losee Canyon - Saratoga Springs	Alt Develop	Utah
5	Lower Price River (Olsen Reservoir)	Draft	Carbon
6	Pleasant Creek Watershed (Mt Pleasant City)	Draft	Sanpete
7	Upper Price River Restor (Garley)->EIS add 700K FY2020 request	Agreement	Emery
8	Skull Valley Indian Reservation	Scoping	Tooele
9	Upper Weber River Watershed	Draft	Weber
10	Pleasant Grove-Mill Ditch-Amend	NHQ-Author	Utah
11	Glenwood Town - EA (Flood Channel)	Agreement	Sevier
12	Tri-Valley Revision- Daniels Creek (Flood/Irrigation)	Scoping	Wasatch
13	Parowan Valley (convert to EIS) - \$500K + \$340K-FY2020 request	Draft-->EIS	Iron
14	North Ogden - Weber-Box Elder Conservation District	Final Draft	Weber
15	Richfield-West Sevier Watershed	Final Draft	Sevier
16	Cove Reservoir Watershed (Irrig, Rec)	NWMC Rev	Kane
17	Santaquin Watershed (Flood)	NHQ-Author	Utah
18	Warner Draw Watershed (Disposal, Virgin Habitat)	Draft	Washington
19	Gould Wash DB --> separate from Warner Draw for EIS development	Scoping	Washington
20	Uintah Water Efficiency Project - UWCD (RCPP)	Draft	Uintah
21	Virgin River - Washington County - (RCPP w/#18)	Draft	Washington
22	UT County-Spanish Fork Watershed (Post Fire Areas) (NEW PL566)	Pre-Scoping	Utah
24	Santa Clara Watershed (NEW PL566)	Agreement	Washington
25	American Fork River-Culvert-Floodway Restoration	Agreement	Utah
26	Pleasant Grove-Mill Ditch-Amend - Construction	Amend Agreeemt	Utah
27	Enoch City Watershed-East Bench (NEW PL566)	Agreement	Iron
28	Lower San Pitch Watershed (NEW PL566)	Agreement	Sanpete

Utah NRCS Dam Rehabilitation



Date: 3/3/2020

Emergency Watershed Prog.

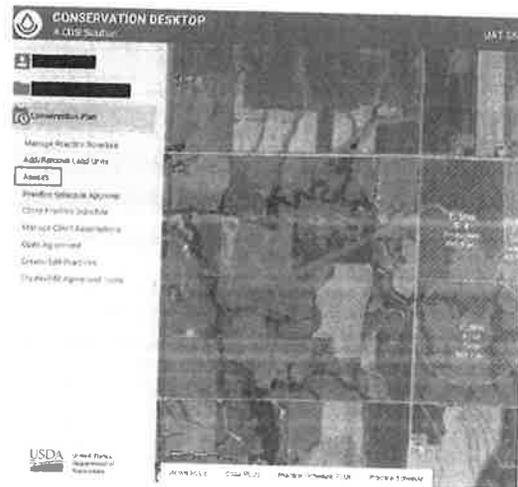
UTAH EWP PROGRAM SUMMARY													Updated: 1/24/2020	
Project #	Name	Event Date	County	Cong. District	Funding Approved			Project status	Storm Designation			EDR in EWP tool	DSR in EWP tool	
					TA	FA	Total		Federal	FEMA No	Local			
5066	Hanksville Diversion	9/24/2016	Wayne	2	\$ 1,551,400.00	\$ 7,757,000.00	\$ 9,308,400.00	Design			X	X	approved	
5112	Brian Head Fire -Garfield Co.	7/18/2017	Iron	2	\$ 239,033.40	\$ 1,195,167.00	\$ 1,434,200.40	Construction	X	FM-5185		X	approved	
5112	Brian Head Fire - Paragonah DSR-Iron Co	7/18/2017	Iron	2	\$ 149,737.60	\$ 748,688.00	\$ 898,425.60	90% complete	X	FM-5185		X	approved	
5113	Big Water	9/24/2016	Kane	2	\$ 308,312.20	\$ 1,541,561.00	\$ 1,849,873.20	Completed			X	X	approved	
5113	Kanab City	9/24/2016	Kane	2	\$ 97,478.20	\$ 487,391.00	\$ 584,869.20	90% complete			X	X	approved	
5113	Carbon County Flood	9/24/2016	Carbon	3	\$ 477,149.60	\$ 2,385,748.00	\$ 2,862,897.60	Completed			X	X	approved	
5113	Torrey Town	8/3/2016	Wayne	2	\$ 35,056.60	\$ 175,283.00	\$ 210,339.60	Completed			X	X	approved	
5114	Kane County - Flooding - Cottonwood Road	2/27/2017	Kane	2	\$ 57,393.40	\$ 286,967.00	\$ 344,360.40	Completed			X	X	approved	
5116	Brigham City	3/22/2018	Box Elder	1	\$ 45,082.60	\$ 225,413.00	\$ 270,495.60	Completed			X	X	approved	
5117	Trail Mtn Fire - Emery Co	6/14/2018	Emery	3	\$ 421,500.00	\$ 5,620,001.00	\$ 6,041,501.00	Construction			X	X	approved	
5122	Utah County - Pole Crk/Bald Mtn Fire	10/2/2018	Utah	3	\$ 1,596,510.00	\$ 7,982,550.00	\$ 9,579,060.00	Design	X	FM-5277		X	approved	
5124	Highland City - Flood	10/5/2018	Utah	3	\$ 12,627.00	\$ 63,135.00	\$ 75,762.00	Design			X	X	approved	
5118	Duchesne Co - Dollar Ridge Fire	7/1/2018	Duchesne	1	\$ 1,166,580.00	\$ 5,832,900.00	\$ 6,999,480.00	Design	X	FM-5248		X	approved	
5118	Wasatch Co - Dollar Ridge Fire	7/1/2018	Wasatch	3	\$ 865,341.00	\$ 4,326,705.00	\$ 5,192,046.00	Design	X	FM-5248		X	approved	
5119	Washington Co - New Harmony Flood	7/14/2018	Washington	2	\$ 655,620.00	\$ 3,278,100.00	\$ 3,933,720.00	Design			X	X	approved	
5120	St. George - Ft Pearce Wash	8/22/2018	Washington	2	\$ 108,000.00	\$ 540,000.00	\$ 648,000.00	Design			X	X	approved	
5121	Sevier Co. - Cedar Ridge & Willow Crk	7/14/2018	Sevier	2	\$ 41,385.00	\$ 206,925.00	\$ 248,310.00	Design			X	X	approved	
5123	Kanab City 2018 Flooding	7/14/2018	Kane	2	\$ 56,550.00	\$ 282,750.00	\$ 339,300.00	Design			X	X	approved	
Funded Projects Total					\$ 7,884,756.60	\$ 42,936,284.00	\$ 50,821,040.60							
5066	Hanksville Diversion	9/24/2016	Wayne	2	\$ 3,000,000.00	\$ 15,000,000.00	\$ 18,000,000.00	Design			X	X	approved	
	Weber County - Flooding	7/1/2019	Weber	1	\$ 54,141.00	\$ 270,705.00	\$ 324,846.00	Funding			X	X		
EDR, DSR, Waitlist Pending Projects Total					\$ 3,000,000.00	\$ 15,000,000.00	\$ 18,000,000.00							

Conservation Assessment Ranking Tool

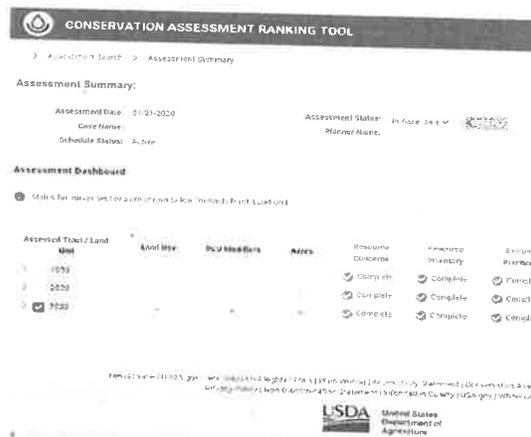


Overview

The Natural Resources Conservation Service's (NRCS) Conservation Assessment Ranking Tool (CART) incorporates a program-neutral assessment with an integrated and efficient ranking tool to facilitate conservation delivery. Planners start in Conservation Desktop (CD) and select a client's practice schedule with at least one or more digitize planned land units (PLUs) to assess in CART. Within CART, the planners select resource concerns for assessment and will answer a series of resource inventory questions based on the land use, land use modifiers, and resource concerns selected, as well as note any existing conservation practices, to capture the existing conditions on the land unit. CART pulls geospatial data behind the scenes to support the field office staff's determination of the site vulnerability and existing conditions, as well as answer some of the resource inventory questions in CART. Planners then select conservation practices in CART to create an alternative plan to address resource concerns on the client's land. The assessment can then be moved forward to ranking where the planned conservation practices can be considered for funding from applicable ranking pools.



The Assess button in Conservation Desktop takes planners to CART



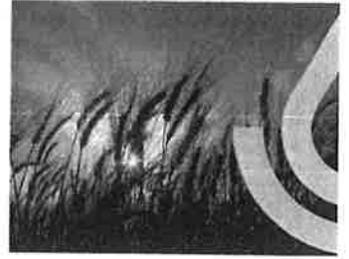
CART Objectives

- Streamline inventorying the land and assessing a client's operation
- Provide efficient conservation planning and ranking
- Reduce data duplication
- Increase time efficiency for both planners and producers
- Improve services to customers by increasing a planner's face to face time with clients
- Support program neutral planning that informs NRCS Programs in a consistent, integrated process
- Provide an adaptive learning framework



CART Fact Sheet

Resource Concerns to Assess



CART streamlines our ability to assess and document resource concerns, however CART can only make determinations based on the information entered by the planner. CART does not eliminate the inventory process or the need for field visits. The conservation planner must have a good understanding of local resources, common resource concerns, planning criteria and be able to communicate well with the client.

The conservation planner determines what resource concerns will be assessed in CART. That decision can be based on several factors like observations made on the site during the inventory process, talking to the client, knowing the local, state and national conservation priorities, and conservation program requirements.

When visiting the farm, a planner needs to be constantly observing what is happening within the planning unit. There are often many clues to tell the planner what resource concerns may exist. Visible soil erosion, poor plant health, nearby water features, or steep unprotected slopes are simple observations that can guide the planner in determining what resource concerns to assess.

Communicating with the client will also provide clues about potential resource concerns. Obviously, the client came to us with a problem that needs to be solved, so the planner will want to assess resource concerns related to that problem. By talking with the client and showing interest in their operation, additional concerns may be revealed to the planner.

Often conservation program rules and guidance can direct what resource concerns are assessed. Some programs will only be available for certain resource concerns or require a certain set of resource concerns to be addressed.

By utilizing CART, the planner can streamline the assessment and documentation of resource concerns. However, the planner must use their own knowledge, skills and abilities to determine what resource concerns to assess in CART and provide the correct data to get accurate answers. This means the planner must observe the landscape, communicate with the client and understand conservation program requirements to successfully assess resource concerns and develop conservation plans in CART.



Will I be paid for an easement?

The value of an easement is determined by a third party appraisal. Any payments to you will come from the entity, not NRCS.

NRCS provides cost-share assistance to eligible entities to purchase agricultural easements from land owners. NRCS cost-share generally will not exceed 50 percent of the fair market value of the agricultural land easement, unless a waiver is granted for a special case. The entity must provide an amount that is at least as much as the NRCS contribution. For example:

- Easement fair market value: **\$100,000**
- NRCS contribution: **\$50,000 (50% of value)**
- Eligible entity contribution: **\$50,000 (50% of value)**



\$100,000



\$100,000

In special cases, such as Grasslands of Special Environmental Significance (GSS), NRCS may grant a waiver to the cost-share rules and pay up to 75 percent of the fair market value of the easement. GSS designation will be verified by NRCS onsite.

Fair market value is determined by third party appraisal during Step 3. The entity hires the appraiser. The landowner does not pay for or participate in the selection of the appraiser; this responsibility will be taken care of by the entity. The entity will have enough knowledge of conservation easement values to make the landowner an offer based on an easement value.

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FAQ

What is a Conservation Easement?

A conservation easement is an interest in real property established by an agreement between a landowner and an eligible entity to prohibit some uses of the land, such as non-agricultural development. The landowner, entity and NRCS work together to determine which uses should be prohibited to achieve certain conservation goals.

What is an Eligible Entity?

An eligible entity is an organization which meets NRCS requirements to hold an agricultural easement, such as an American Indian tribe, state or local government, private organization, or some combination of these groups. Eligible entities purchase conservation easements from landowners to protect the agricultural and natural resource values of a property.

How do I find an Eligible Entity?

Land trusts are a common ALE partner. For a list of land trusts/other groups that work in AZ visit the National Land Trusts website:

https://www.findlandtrust.org/states/arizona4/land_trusts

Am I eligible for ALE?

Landowners must be compliant with Adjusted Gross Income, Highly Erodible Land and Wetland Conservation requirements. Eligible land types include those that have prime, unique, or other productive soil, contain historical or archaeological resources, those where enrolling the land would protect grazing uses and related conservation values by restoring and conserving land, or where protecting the land will further a State or local policy consistent with the purposes of ACEP.

Does ALE restrict recreation?

No. ALE does not restrict recreation such as hunting or fishing. Speak with your entity to discuss permanent structures related to recreation.

Still Have Questions?

Visit your local NRCS Field Service Center or call 602-280-8823 to speak with an NRCS Easement Specialist.

AGRICULTURAL LAND EASEMENT

ALE IS A COMPONENT OF THE AGRICULTURAL
CONSERVATION EASEMENT PROGRAM (ACEP)



If you want to keep your land in agricultural use for future generations, an Agricultural Land Easement (ALE) might be right for you.

keeping working lands

WORKING.

5 Steps

to an Agricultural Land Easement for Landowners when working with NRCS

1

Identify an eligible entity and submit an application to NRCS

Eligible entities include state or local government agencies, Indian Tribes, and non-governmental organizations with specific certification, such as a land trust.

Only an eligible entity can hold an NRCS conservation easement.

Once you've found the entity that's right for you, the entity will complete and submit an easement application to NRCS on your behalf.

Applications can be submitted at any time, but will be reviewed after the application deadline.

Total Duration:
1 month - 1 year

2

NRCS determines eligibility, rank and selection for funding

NRCS determines land, landowner and entity eligibility for ALE.

Land eligibility is based on several factors, including land type, land use, written pending offer, ownership, proximity to agricultural markets, and the threat of development and potential to protect agricultural uses.

NRCS also completes a landowner interview, on-site field verifications and due diligence.

If eligible, the application is ranked for funding, the ALE ranking worksheet can be found on the NRCS easement program web page.

Total Duration:
6-8 months

3

Enter into ALE Agreement

If selected for funding, NRCS and the entity will enter into an ALE agreement, which specifies rights, responsibilities and financial obligations to purchase the ALE easement.

The entity contracts with third parties for a title report, appraisal and environmental assessment.

The entity works with the landowner to complete the baseline report, the ALE Plan, a draft conservation easement deed with NRCS minimum deed terms and other needed documents.

Total Duration:
1 -3 years

4

Review documents and establish easement

NRCS reviews, works with the entity to finalize, and approves the documents for closing on the ALE easement.

The entity consults with the landowner on any changes.

The entity provides the final documents to NRCS approximately 120 days before closing.

If everything is determined to be in order, the ALE easement deed will be recorded on the property title and funds are transferred to the landowner through escrow from the entity.

Total Duration:
90-120 days

5

Monitoring and management

You've done it! The road has been long and there may have been a few bumps, but your land is now protected from non-agricultural development.

The working land is protected for future generations to continue agricultural production according to the ALE deed and plan as developed in step 3.

The entity will continue to work with the landowner to implement the ALE plan and to provide annual monitoring reports to NRCS.

Total Duration:
now and forever

7 things to know about ALE

1. Land with an ALE easement still belongs to you, just with restrictions. You retain the right to transfer ownership in the future.
2. Only an eligible entity can hold an ALE easement.
3. Unlike other NRCS programs, the entity you select will work with NRCS.
4. The value of an easement is determined by a third party appraisal. Any payments to you will come from the entity, not NRCS.
5. The ALE Agreement is between the entity and NRCS rather than the landowner and NRCS. The entity has a separate agreement with the landowner, the Offer to Purchase the ALE.
6. ALE easements are forever. The ALE deed will be permanently recorded with the land title, regardless of changes in ownership.
7. The landowner provides input to the ALE Plan, it is a living document and can be modified if agreed to by the entity and NRCS.



NRCS Easement Programs

Agricultural Conservation Easement Program

Overview

The Agricultural Conservation Easement Program (ACEP) helps landowners, land trusts, and other entities protect, restore, and enhance wetlands, grasslands, and working farms and ranches through conservation easements. Under the Agricultural Land Easements component, NRCS helps American Indian tribes, state and local governments, and nongovernmental organizations protect working agricultural lands and limit non-agricultural uses of the land.

Agricultural Land Easement (ACEP-ALE)

Protecting the agricultural use and future viability, and related conservation values, of eligible land by limiting nonagricultural uses of that land that negatively affect the agricultural uses and conservation values.

Wetland Reserve Easement (ACEP-WRE)

NRCS also provides technical and financial assistance directly to private landowners and Indian tribes to restore, protect, and enhance wetlands through the purchase of a wetland reserve easement.

Eligible Entities

Any state or local unit of government, or qualified nongovernmental organization can apply for ACEP-ALE funds by demonstrating:

- A commitment to long-term conservation of agricultural lands with capability to acquire, manage, and enforce easements
- Sufficient staff dedicated to monitoring and easement stewardship
- The availability of matching funds

How to sign up:

1. Update or established farm records with the Farm Service Agency.
2. Sign up an application with NRCS:
 - ACEP-ALE must use FY 2020 application forms CPA-41 and CPA-41a.
 - ACEP-WRE must use application CPA-1200 dated 3/2019 or later.
3. NRCS will work with producers to complete the application package.

**Natural
Resources
Conservation
Service**

Agricultural Land Easement (ACEP-ALE): Protecting the agricultural use and future viability, and related conservation values, of eligible land by limiting nonagricultural uses of that land that negatively affect the agricultural uses and conservation values.

- NRCS provides funds to eligible entities for the purchase of agricultural land easements. Federal Share (provided by NRCS) is limited to up to 50 percent of the fair market value of the agricultural land easement. Non-Federal Share, provided by an eligible entity, must equal the federal share.

- Eligible Entity holds the easement

- US obtains a 3rd party right of enforcement (the United States does not hold the easement. Instead, the U.S. acquires a right to enforce the terms of the easement.)

- Eligible Entity responsible for monitoring, management, and enforcement

- Easements run with the land in perpetuity.

Wetland Reserve Easement (ACEP-WRE): NRCS also provides technical and financial assistance directly to private landowners and Indian tribes to restore, protect, and enhance wetlands through the purchase of a wetland reserve easement. Wetland Reserve Easements provide habitat for fish and wildlife (including threatened and endangered species), improve water quality by filtering sediments and chemicals, reduce flooding, recharge groundwater, protect biological diversity, and provide opportunities for educational, scientific, and non-developed recreational activities.

- NRCS purchases easements directly from private and Tribal landowners through a reserved interest deed in eligible land to restore, protect, and enhance wetlands and associated lands.

- US holds the easement

- NRCS responsible for monitoring, management, and enforcement

- Permanent Easements – Permanent easements are conservation easements in perpetuity. NRCS pays 100 percent of the easement value for the purchase of the easement. Additionally, NRCS pays between 75 to 100 percent of the restoration costs.

- 30-year Easements – 30-year easements expire after 30 years. Under 30-year easements, NRCS pays 50 to 75 percent of the easement value for the purchase of the easement. Additionally, NRCS pays between 50 to 75 percent of the restoration costs.



Cache-Rich Team

North Logan Field Office

1860 North 100 East
North Logan, UT 84341

Phone: (435) 753-5616

Randolph Field Office

195 North Main
PO Box 97

Randolph, UT 84064

Phone: (435) 793-3905

More Information

For more information, visit

nrcs.usda.gov/farmland or farmers.gov.

Find your local USDA Service Center at

farmers.gov/service-locator.



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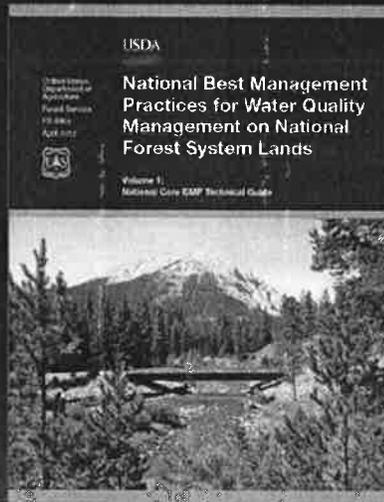
U.S. Forest Service 2019 Update and Accomplishments



National BMP Program-Update



- Aquatic Ecosystems
- Chemical Use
- Facilities / Special Uses
- Fire Management
- Minerals Management
- Rangeland Management
- Recreation Management
- Roads Management
- Vegetation Management
- Water Uses



<https://www.fs.fed.us/biology/watershed/BMP.html>

Farm Bill 2018. Section 8404

SEC. 303. WATER SOURCE PROTECTION PROGRAM

- » The Secretary shall establish and maintain a program, to be known as the '**Water Source Protection Program**', to carry out watershed protection and restoration projects on National Forest System land.
- » The Secretary may enter into **water source investment partnership agreements** with end water users to protect and restore the condition of National Forest watersheds that provide water to the end water users.
- » A **partnership agreement** may take the form of—
 - a memorandum of understanding
 - a cost-share or collection agreement
 - a long-term funding matching commitment; or
 - another appropriate instrument, as determined by the Secretary

Farm Bill 2018. Section 8404

SEC. 303. WATER SOURCE PROTECTION PROGRAM

- » To the extent that **forest management activities** are necessary to protect, maintain, or enhance water quality, the Secretary shall carry out forest management activities as part of watershed protection and restoration projects carried out on National Forest System land, with the primary purpose of—
 - protecting a municipal water supply system
 - restoring forest health from insect infestations and disease; or
 - any combination of above

Farm Bill 2018. Section 8404

Funding

- » In carrying out the Program, the Secretary may accept and **use funding, services, and other forms of investment** and assistance from non-Federal partners to implement the water source management plan (1:1 match)
- » Subject to the availability of appropriations, the Secretary may establish a **Water Source Protection Fund** to match funds or in-kind support contributed by non-Federal partners
- » There is authorized to be appropriated to carry out this section \$10M for each of fiscal years 2019 through 2023.
- » The Secretary may make **multiyear commitments**, if necessary, to implement 1 or more **partnership agreements**.



Tahoe National Forest



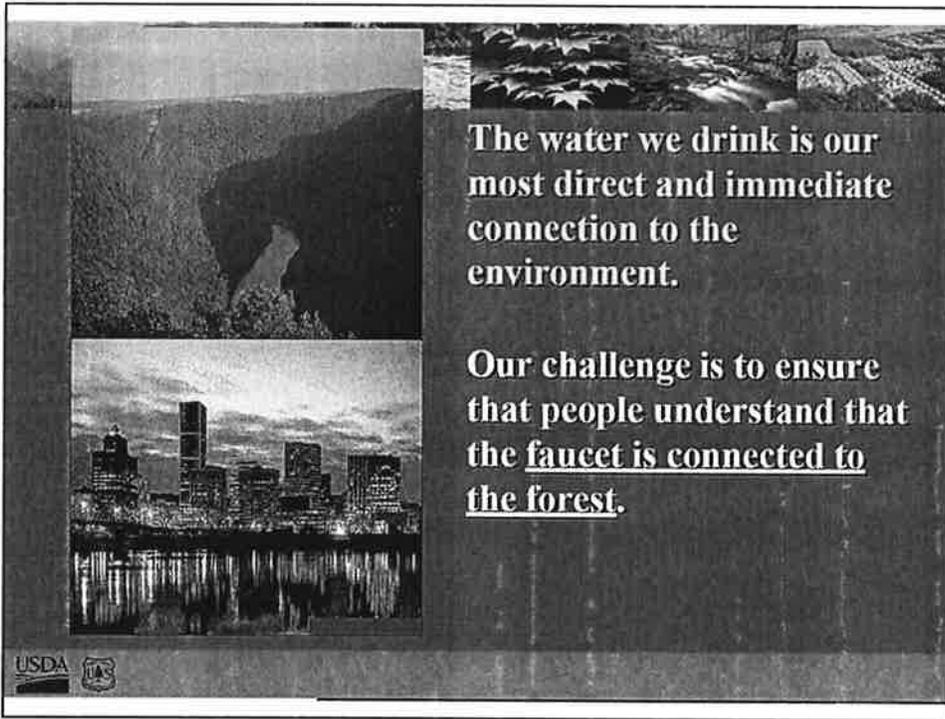
\$4.6 Million Restoration Project to Mitigate Wildfire Risk in Tahoe National Forest

- financing secured from The **Rockefeller Foundation**, the **Gordon & Betty Moore Foundation**, **Calvert Impact Capital**, and **CSAA Insurance Group**
- **Yuba Water Agency**, a utility provider that recognizes the benefits of restoration to local water and power resources, has committed \$1.5 million over five years to reimburse investors
- **State of California** has committed \$2.6M in grant funding to the project from the state's Climate Change Investment program
- The **Tahoe National Forest** will provide in-kind support and services and has provided all the resources associated with planning and permitting the project.
- The **National Forest Foundation** serves as one of the project's primary implementation partners, leading much of the forest restoration work on the ground.

Watershed Investment Partnership Practical Guide

<https://www.fs.fed.us/sites/default/files/USFSWatershedManual20190825-508.pdf>

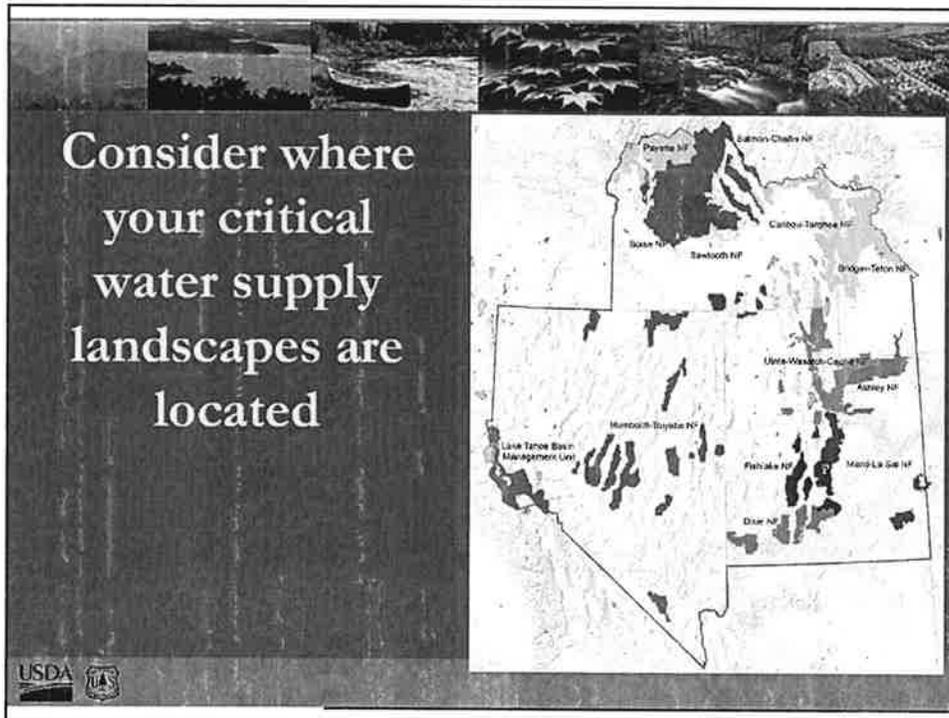




The water we drink is our most direct and immediate connection to the environment.

Our challenge is to ensure that people understand that the faucet is connected to the forest.

USDA IAS



Consider where your critical water supply landscapes are located



USDA IAS

Shared Stewardship in Utah

USDA Forest Service and Utah Division of Forestry, Fire & State Lands

Tyler Ashcroft, Shared Stewardship Coordinator, USFS
Intermountain Region

Laura Ault, Utah Shared Stewardship Coordinator, Utah Division
of Forestry, Fire & State Lands

Shared Stewardship An Outcome-Based Strategy

USDA
United States Department of Agriculture

**Toward Shared Stewardship
Across Landscapes:**
An Outcome-Based Investment Strategy

- Determine management needs at a state level
- Do the right work, in the right places, at the right scale
- Use all available tools for active management.



Utah Shared Stewardship Agreement



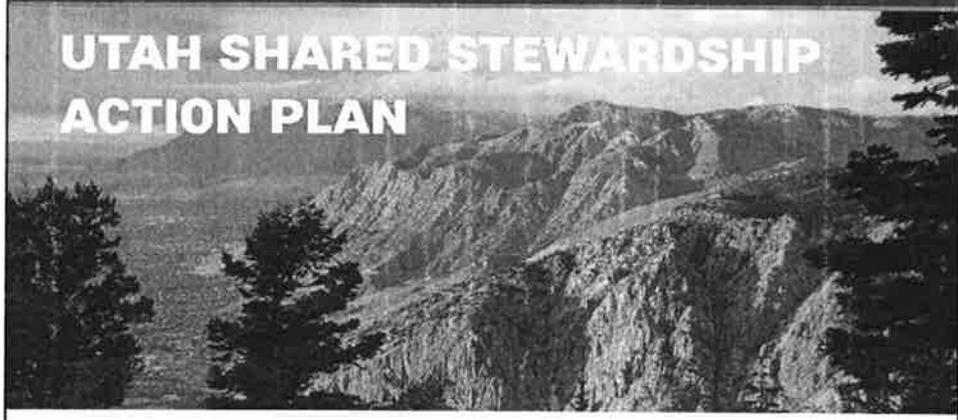
- Identify and map shared priorities for protecting at-risk communities across Utah.
- Make joint decisions and share resources for immediate and ongoing work in priority areas.

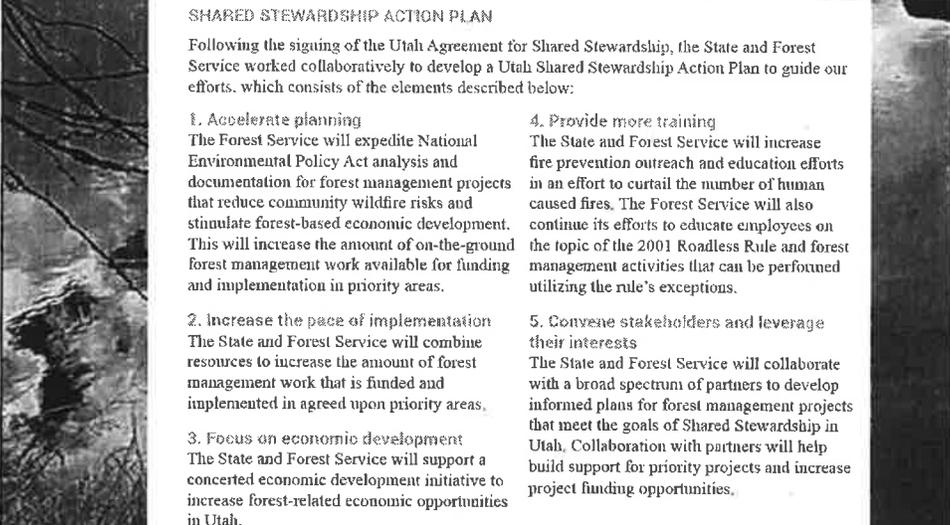


United States Department of Agriculture
Forest Service
Intermountain Region



UTAH SHARED STEWARDSHIP ACTION PLAN





SHARED STEWARDSHIP ACTION PLAN

Following the signing of the Utah Agreement for Shared Stewardship, the State and Forest Service worked collaboratively to develop a Utah Shared Stewardship Action Plan to guide our efforts, which consists of the elements described below:

1. Accelerate planning

The Forest Service will expedite National Environmental Policy Act analysis and documentation for forest management projects that reduce community wildfire risks and stimulate forest-based economic development. This will increase the amount of on-the-ground forest management work available for funding and implementation in priority areas.

2. Increase the pace of implementation

The State and Forest Service will combine resources to increase the amount of forest management work that is funded and implemented in agreed upon priority areas.

3. Focus on economic development

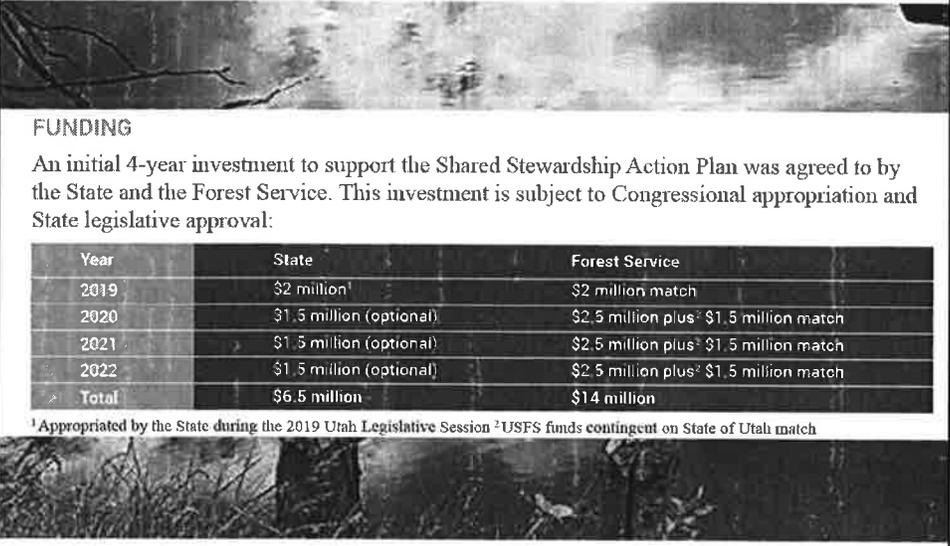
The State and Forest Service will support a concerted economic development initiative to increase forest-related economic opportunities in Utah.

4. Provide more training

The State and Forest Service will increase fire prevention outreach and education efforts in an effort to curtail the number of human caused fires. The Forest Service will also continue its efforts to educate employees on the topic of the 2001 Roadless Rule and forest management activities that can be performed utilizing the rule's exceptions.

5. Convene stakeholders and leverage their interests

The State and Forest Service will collaborate with a broad spectrum of partners to develop informed plans for forest management projects that meet the goals of Shared Stewardship in Utah. Collaboration with partners will help build support for priority projects and increase project funding opportunities.



FUNDING

An initial 4-year investment to support the Shared Stewardship Action Plan was agreed to by the State and the Forest Service. This investment is subject to Congressional appropriation and State legislative approval:

Year	State	Forest Service
2019	\$2 million ¹	\$2 million match
2020	\$1.5 million (optional)	\$2.5 million plus ² \$1.5 million match
2021	\$1.5 million (optional)	\$2.5 million plus ² \$1.5 million match
2022	\$1.5 million (optional)	\$2.5 million plus ² \$1.5 million match
Total	\$6.5 million	\$14 million

¹Appropriated by the State during the 2019 Utah Legislative Session ²USFS funds contingent on State of Utah match

What's next?

- Share Shared Stewardship Priority Landscapes
- 2020 Project Submittals and Selections
- Dialog with Partners



Questions?

For more information: www.fs.fed.us

Shared Stewardship Strategy:
www.fs.fed.us/managing-land/shared-stewardship

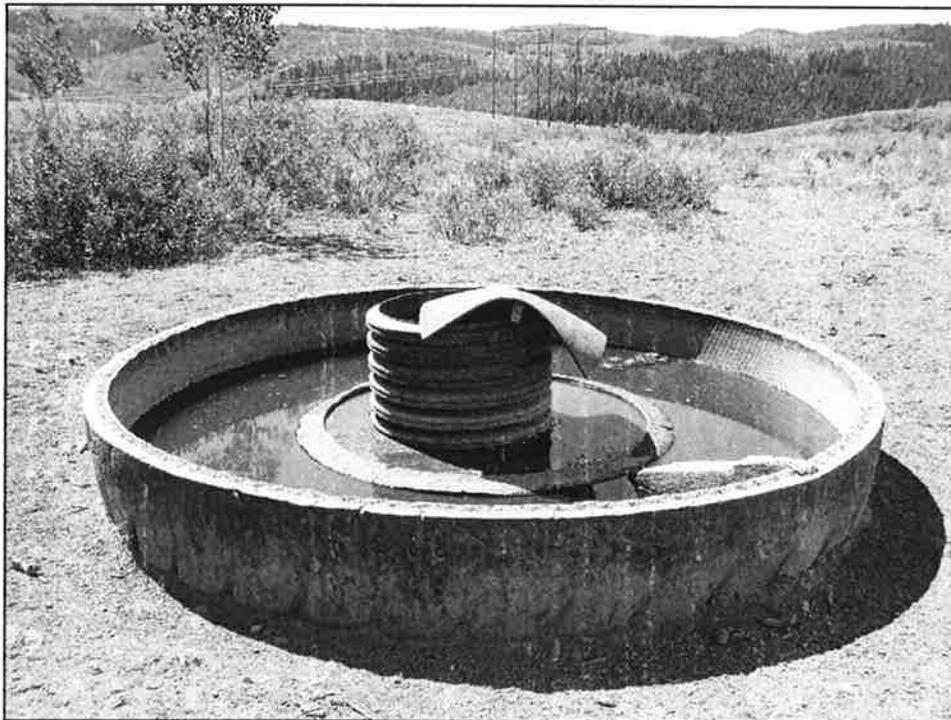
<https://www.fs.usda.gov/detail/r4/landmanagement/?cid=FSEPRD647311>

<https://utah-shared-stewardship-utahdnr.hub.arcgis.com/>



Uinta-Wasatch-Cache National Forest

- Completed the Mill Creek restoration watershed project east of Salt Lake City that has been going on for the last eight years.
 - Replaced culverts along Mill Creek and Porter Fork to provide aquatic organism passage
 - Removed FERC dam and rebuilt and restored the stream channel.
- Main emphasis over the next year is to support fuels and fire projects for the reduction of catastrophic wildfire impacts in the Heber and Evanston/ Mt. View Ranger Districts, and to evaluate proposals for post-fire restoration projects in the 2018 Pole Creek/ Bald Mountain fire area.
- Part of our work is to provide support for range projects that move livestock from riparian areas to ridge lines. The photos below show a large holding tank and one of many troughs along the Eli and Dairy ridges east of Woodruff, Utah.





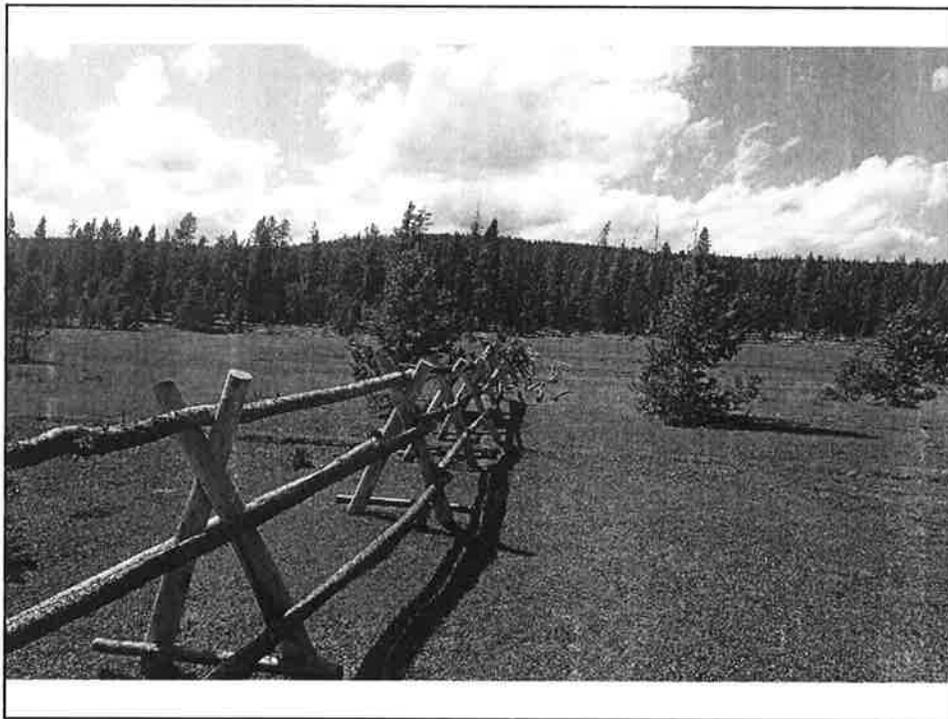
Ashley National Forest

Recent projects benefitting water quality:

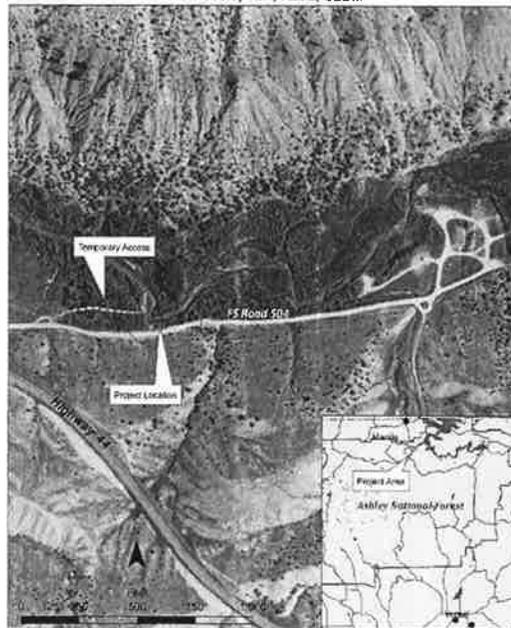
- Stream bank restoration in Sheep Creek drainage
- Riparian fence around the Government Park stream and meadow restoration
- Non-system road closure and revegetation in Alma Taylor Meadow (Vernal Municipal watershed)
- ATV trail reroutes around wet meadows, (outlaw ATV trail)
- Forest Health related projects such as prescribed burns, timber stand improvement (Alma Taylor) and thinning of young conifer encroaching in meadows.

Currently working on lining up priorities with Shared Stewardship priorities.

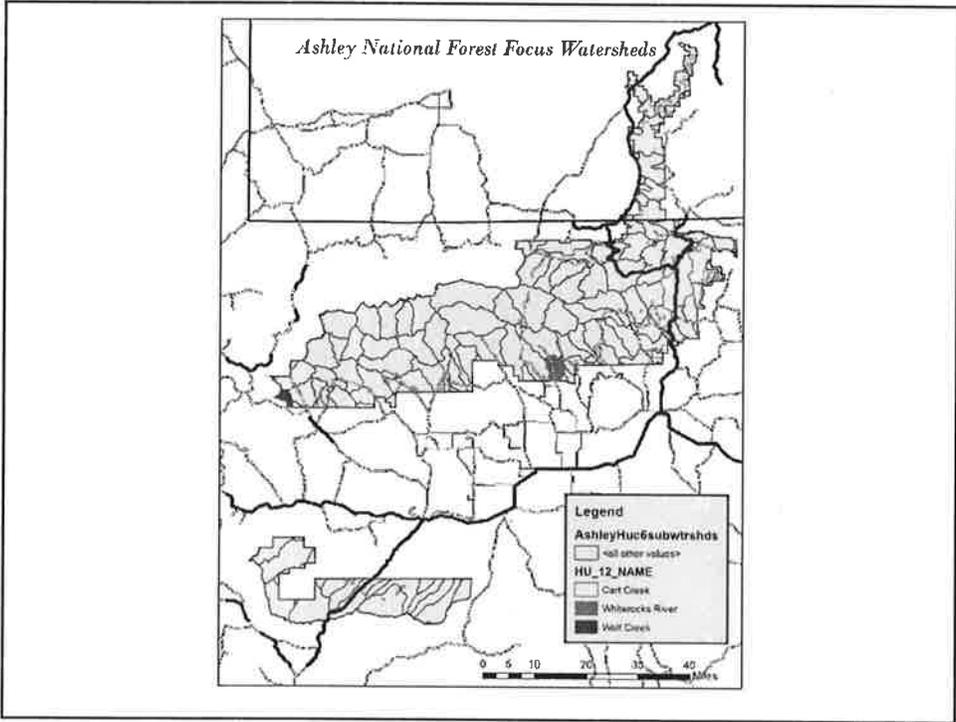
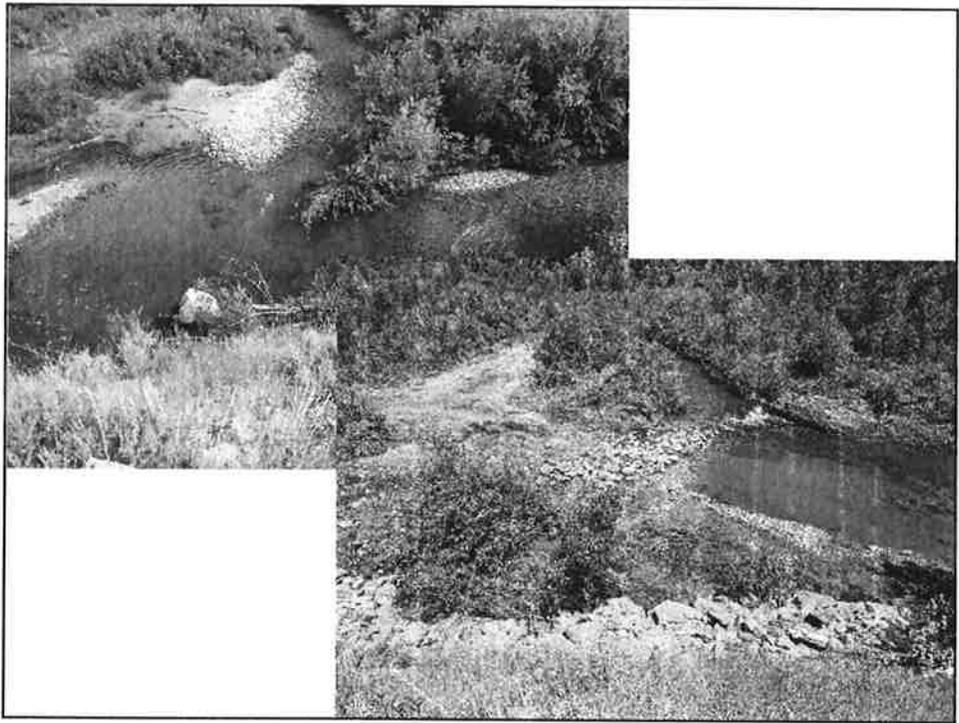
- Flaming Gorge Ranger District - Additional work in the Cart Creek subwatershed, with projects related to timber stand improvement and fuels projects.
- Vernal Ranger District – Whiterocks watershed will be a focus/priority watershed, with ongoing fuels work, WUI, Ponderosa stand improvements, aspen restoration, and road improvements near water crossings.
- Roosevelt/Duchesne Ranger District – Priority watersheds being selected tied to spruce beetle mortality in the Duchesne river drainage.

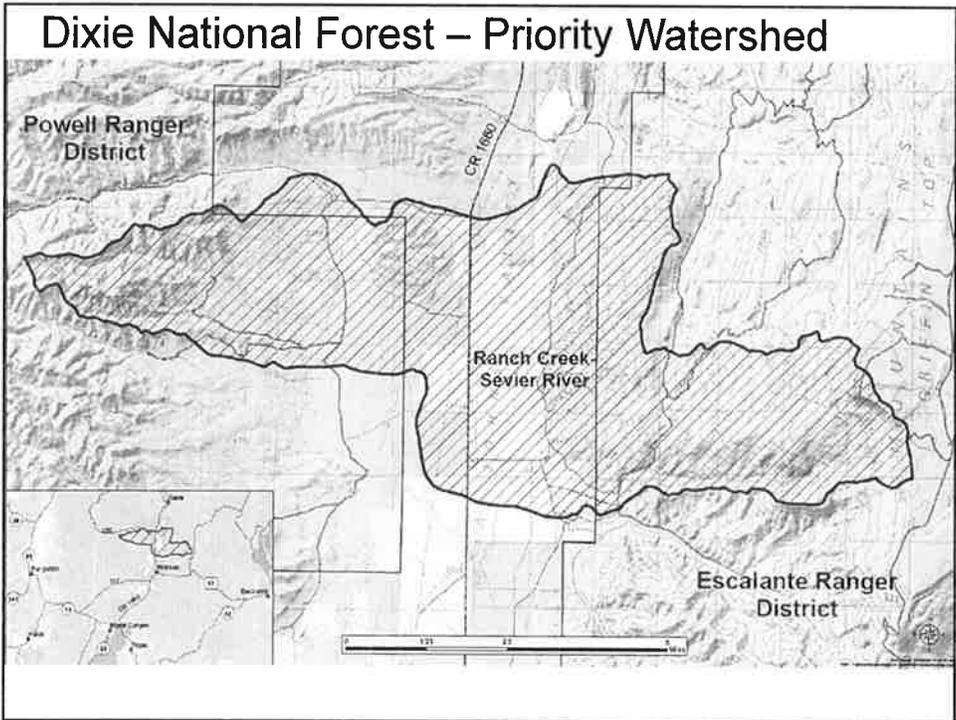
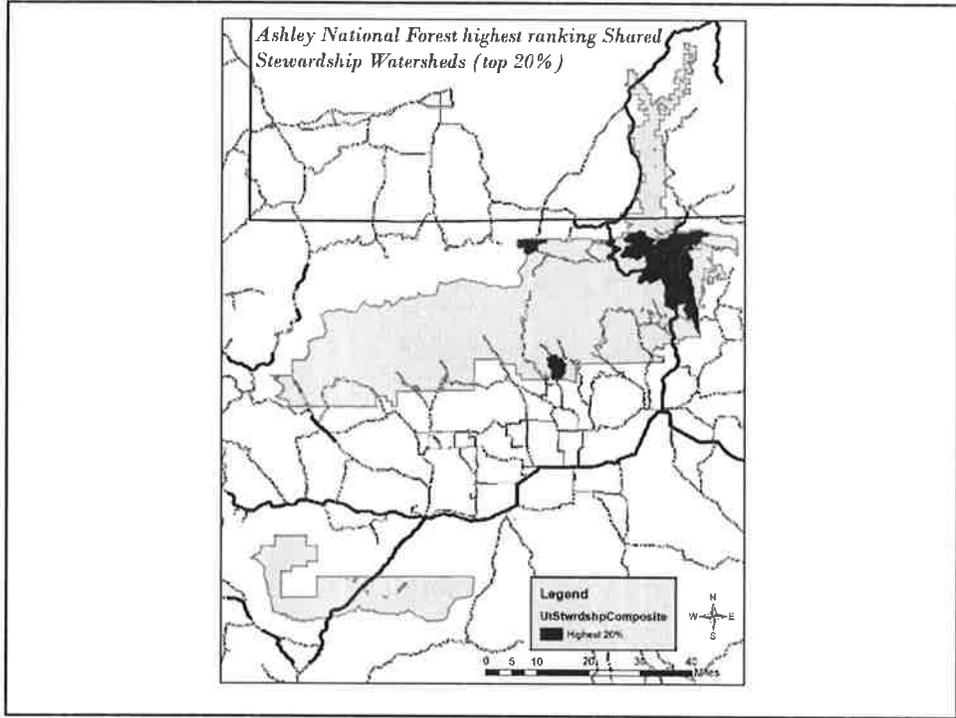


Project Location: Sheep Creek Above Flaming Gorge Reservoir
SE Sec. 8, T2N, R20E, SLBM

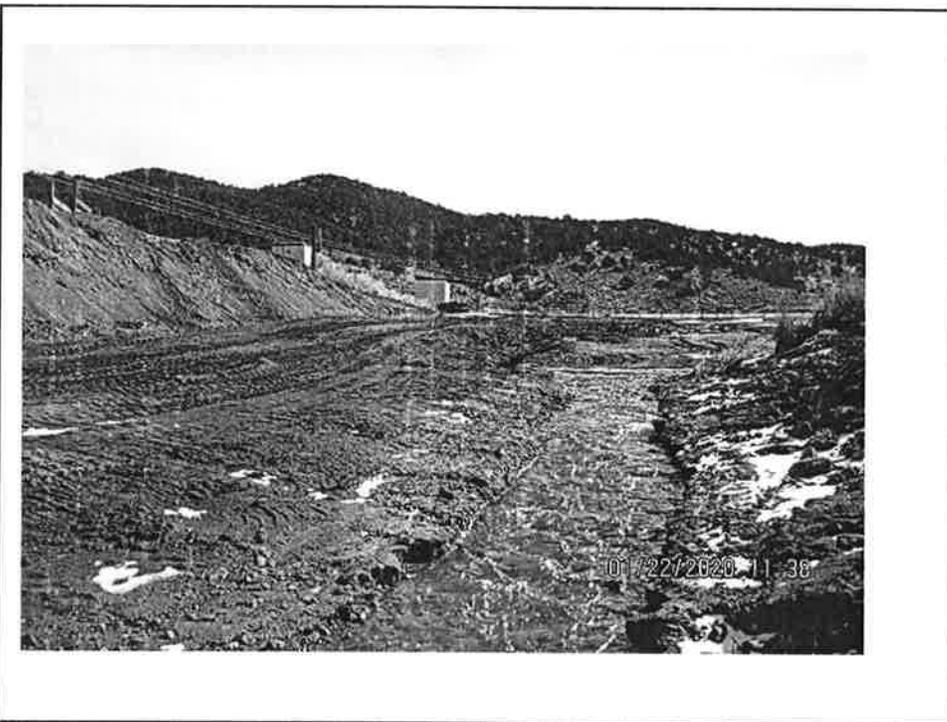
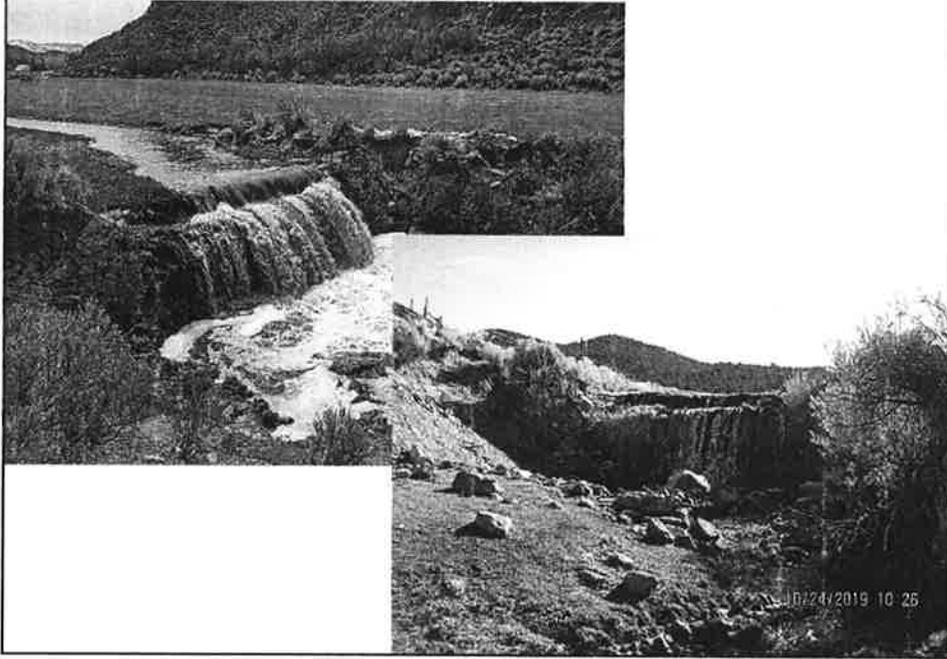


Data provided or modified to fit requirements for the purposes of this document. The source scales are in feet unless otherwise specified.





Dixie NF – Pinto Creek Restoration



Dixie NF – Road Relocations, Ranch Creek, Horse Valley



Manti LaSal National Forest

#1 Trail Mountain Fire Emergency Watershed Protection Project

- The Manti-La Sal National Forest, in cooperation with the Natural Resources Conservation Service (NRCS), and Emery County, Utah proposed the Trail Mountain Fire Emergency Watershed Protection Project.
- Projects include structural improvements designed to harden and improve, or restore temporary structures that were installed as part of the Burned Area Emergency Response (BAER) following the Trail Mountain Fire in 2018.

